COMMERCE AMERICA

FORMERLY COMMERCE TODAY

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A New Name In the Spirit of the 1976 American Bicentennial

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FROM THE SECRETARY

A Happy METRIC New Year

This editorial is written by Assistant Secretary of Commerce for Science and Technology Dr. Betsy Ancker-Johnson.

It is singularly appropriate that in our Bicentennial Year the United States is establishing a national policy to plan for and coordinate a voluntary conversion to the metric system of weights and measures.

The Metric Conversion Act of 1975, signed into law by President Ford a few days before Christmas, brings to an end a debate nearly as old as our country. The legislation serves notice that the metric system will eventually become the predominant (although not the exclusive) measurement system in the United States.

Scientific American said, in an editorial: "There exists no good reason at all why the meter-litergram system has not been adopted by the people of the United States . . . except that deep-seated quality of human nature which causes us all to put our backs up and resist changes until they are forced on us . . . Many American manufacturers, however, already are using the metric system of measurements today for the production of export articles. What remains to be done is . . . to convince the average man of the desirability of the change . . . to demonstrate to him that he should contribute his share to making the change."

Although the editorial sounds very timely, it appeared in *Scientific American*'s July 1923 issue—more than 52 years ago. And, as the metric controversy goes, that was only yesterday. The United States has discussed and investigated the need for a common measurement system from President Washington's time to the present. John Quincy Adams praised the metric system in a report to Congress more than 150 years ago; however, Adams concluded that the metric system was not yet firmly established and that the U.S. should wait for the development of a uniform international measurement system.

Over the last quarter century, metric has gradually become the dominant language of measurement throughout the world. And the United States, as the only major industrial nation which has not adopted it, became an island in a metric sea.

Realizing the potential impact of this development on U.S. commerce, the U.S. Congress acted in August 1968. It passed the Metric Study Act, which directed the Secretary of Commerce to arrange for a broad inquiry and evaluation. The Secretary assigned the task to the National Bureau of Standards, which produced a report whose title summed up its conclusions: "A Metric America: A Decision Whose Time Has Come." The Bureau recommended wider use of the metric measurement language and proposed a coordinated national program to bring this about. The new legislation incorporates many of the report's recommendations.

Thus, the metrication of America will begin in the nation's Bicentennial year. And it will begin in a way which combines the best elements for all Americans—under a rational, voluntary plan tailored to the special situation of each segment of our society. A Presidentially-appointed board of 17 persons will synchronize the conversion and work individually with each economic sector to plan the best schedule for that sector. In this way, metric will come when each individual part of our economy is ready for it—and not before.

Metric has already come to many sectors of American life in the past several years. Thirty-seven of our largest corporations have already announced plans to convert to metric dimensions; total sales of these companies exceed $130 billion. This nation's educational system has also perceived the trend to metric and schools across the country are including it in their curricula.

I expect these activities to grow in a more coordinated way in the future under the impetus of this new legislation. The U.S. international trade position will almost certainly be enhanced. Barriers to U.S. products made in customary dimensions are increasing abroad, raising the reall possibility that American goods could be barred from certain markets entirely. The new law will encourage U.S. companies to abandon the expensive process of dual dimensioning their products—creating metric products for export and items in customary measure for domestic markets.

As President Ford said when he signed the bill: "The real impetus for it came from the private sector—from people in the business of buying and selling American products here and overseas. U.S. industry, in this regard, is miles or(kilometers) ahead of official policy."

A happy, metric New Year!

Betsy Ancker-Johnson

COMMERCE AMERICA

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CONTENTS **Vol. I, No. 1, January 5, 1976**

5
Stage Is Set To Begin Earnest Bargaining At Multilateral Trade Negotiations In Geneva
Officials from 90 nations complete preliminary discussions, welcome appeal by United States to meet a 1977 deadline for agreements.

7
Computer Can Help U.S. Producers Retain Technical Leadership
Standardization of computer-aided manufacturing systems offers important opportunities for improvement in U.S. technological situation, productivity growth and international trade.

9
Designers Can Make Life More Livable, Explain The Unexplainable
In a recent speech, Secretary Morton explains the place of design in U.S. society. This first issue of *Commerce America* responds to his call for better design.

2 Economic Highlights
Consumers are saving more and accumulating less debt relative to their incomes and their stored purchasing power may provide significant support for the economic recovery.

4 Newsmemo

12 Energy Management Digest

13 Domestic Business Report
Fluorocarbons play significant role in five major U.S. industries—U.S. joins World Tourism Organization—Energy labels will guide U.S. refrigerator, dryer purchasers—Rome meeting will try to build on recent international fishery successes—Geothermal energy industry may get federal guarantees—Industrial capacity use up 4 percent—Calendar for businessmen.

18 International Commerce Report
U.S. Commercial Officers adopt special technique to cover German districts—Official Trade Briefs—Reports on U.S. commercial exhibitions abroad—Message to U.S. businessmen from American Ambassador to Morocco—Current economic climate in Spain, Turkey, Singapore, Chile—International business reports reviewed—Calendar for World Traders—Schedule of upcoming Commerce promotions abroad—Licensing, trade, construction opportunities from around the world.

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ECONOMIC HIGHLIGHTS

Improved Financial Position of Consumers Provides Strong Potential for Recovery

Economic Highlights is prepared by James L. Pate, Assistant Secretary of Commerce for Economic Affairs.

Recent developments in individual saving and consumer debt suggest that consumers are improving their liquidity positions. Reductions in debt relative to income and increased savings provide a significant amount of stored purchasing power which will support a sustained economic recovery if there are no further shocks to consumer confidence.

Throughout 1975, consumers decreased their relative use of credit. As a proportion of disposable personal income, total consumer credit outstanding fell from 18.8 percent in the third quarter of 1974 to 17.5 percent in the corresponding quarter of 1975. Monthly data suggest that the decline continued in the fourth quarter. While the amount of credit outstanding increased was less than the rise in personal income.

During the third quarter of 1975, personal saving amounted to 7.8 percent of disposable personal income. The proportion of disposable income saved in the second quarter rose to 10.6 percent, primarily due to the tax rebates and one-time payments made to the recipients of social security and railroad retirement benefits. Although the data for the fourth quarter are not yet available, it appears that the saving rate for calendar 1975 will be near or above its high for the last decade. Even if the saving rate fell as low as 7 percent during the fourth quarter, the year's average would still equal the 8.2 percent saving rate of 1973, the record high for the latest decade.

Inflation has eroded the purchasing power of disposable personal income during the last two years. Disposable personal income is adjusted for inflation by using the personal consumption expenditure deflator of the gross national product accounts. Real disposable income per capita may be used as an approximation of real purchasing power per person. These data are plotted on chart 2.

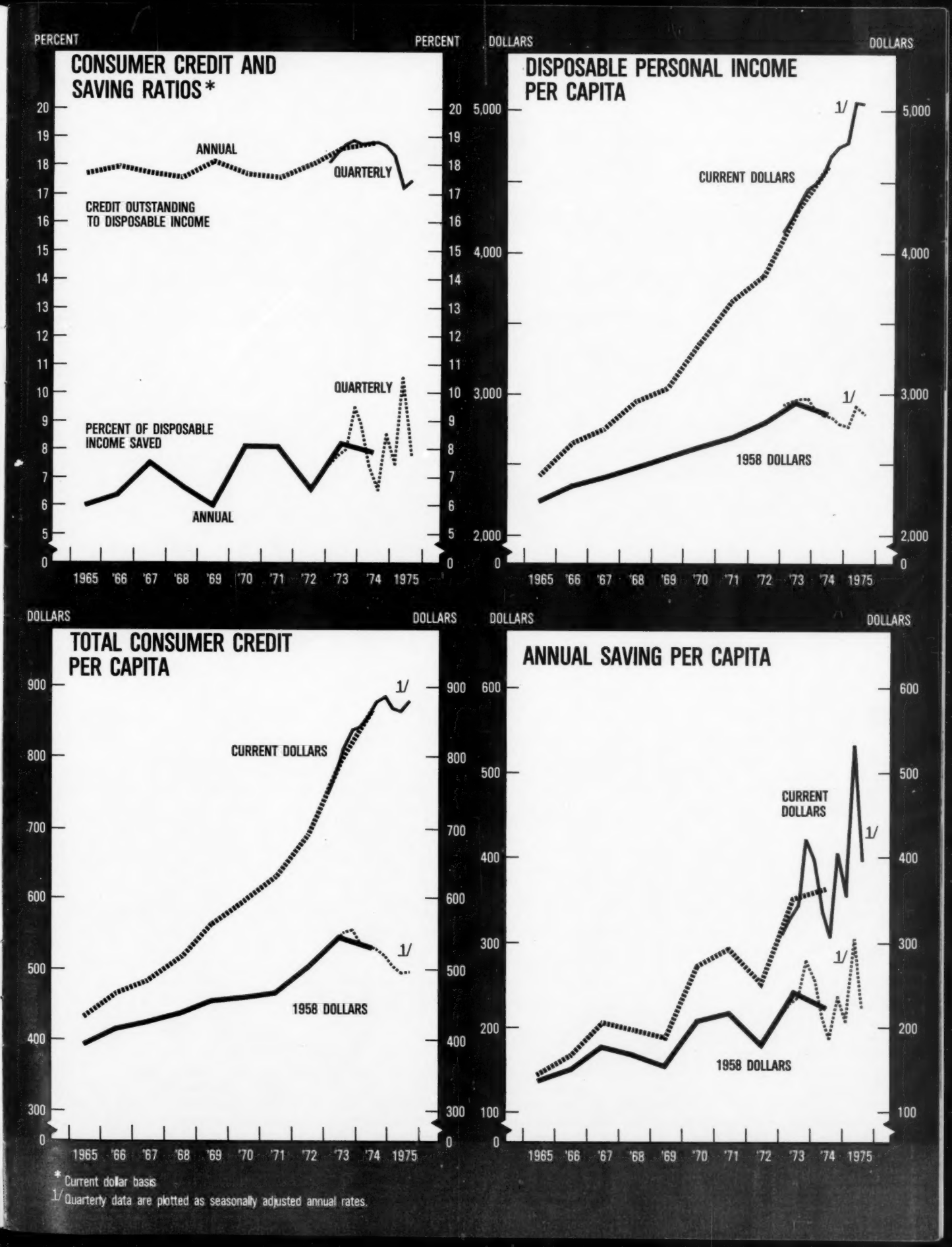
In current dollars, disposable income per person increased continuously over the past 10 years, falling only in the third quarter of 1975 because of the sharp, abnormal increase in the second quarter due to the special government payments mentioned above. However, real purchasing power per person declined throughout 1973 and 1974, reaching a low in the first quarter of 1975. Ignoring the unusual second quarter, purchasing power rose from the first to the third quarter, attesting to the economic recovery which is under way and the gradual improvement in price developments.

Inflation has eroded the purchasing power of consumer credit too. Data for total consumer credit per capita were adjusted by the methods described above, and the results are plotted on chart 3. In current dollar terms, total credit per person rose to a high of $888 in the fourth quarter of 1974 before declining. In real terms, the purchasing power of that credit fell for one and one-half years, from the high attained in the fourth quarter of 1973 to the second quarter of 1975. Similarly, chart 4 shows that while the annual amount saved per person increased since 1973, the purchasing power of saving decreased, again excepting the second quarter of 1975.

Apparently, consumer attitudes toward the use of installment credit were affected by the decline in purchasing power of their incomes, savings, and credit. The increase in installment credit, which occurred at an average amount of $18 billion in 1972 and 1973, fell to half that sum in 1974. During the fourth quarter of 1974 and first quarter of 1975, installment credit decreased at a seasonally adjusted annual rate of almost $3 billion. Consumers have increased their use of such credit since June 1975, but at a monthly rate of less than 0.5 percent. In contrast, the monthly rate of increase was in excess of 1 percent during 1972 and 1973.

Flow of funds data indicate that for the year 1975, a record amount of financial assets will be acquired by households. Financial assets consist of bank deposits, bonds, stocks, and insurance and pension fund reserves. During 1973, households acquired $131 billion of such assets, up from $114 billion in 1972. The amount fell during 1974, but the average quarterly acquisition during the first three quarters of this year was at an annual rate of almost $150 billion. About two-thirds of these funds were deposited in time and savings accounts. Although the average for the first three quarters is distorted by the government payments in the second quarter, the acquisition of financial assets by households for calendar year 1975 will be substantially above the 1973 rate.

As inflation subsides, real saving should increase, and real disposable income almost certainly will continue the upward trends which started in 1975. In historical experience, consumer attitudes, as measured by various private surveys of consumer sentiment, have generally risen with continuing improvement in economic activity. Installment debt as a proportion of disposable personal income has declined to a level not experienced since 1965 which suggests that consumers have ready access to credit should they decide to increase their purchases of retail goods. Consumers have led the economy out of all postwar recessions, and their current liquidity once again puts them in a position to contribute real strength to the recovery. ☆



* Current dollar basis

1/ Quarterly data are plotted as seasonally adjusted annual rates.

Newsmemo

So long, Thirty-Nine Charlie; you've earned a calm retirement. The hurricane-hunting DC-6 of Commerce Department's National Oceanic and Atmospheric Administration has been chasing the greatest storms on earth since 1959. Such research aircraft are basic to the detection and analysis of hurricanes which, first picked up by weather satellite, are tracked by air until they come within range of the radar "picket fence" along the U.S. coast. Thirty-Nine Charlie has withstood the fury of 200-mile-per-hour winds, tackled Indian Ocean monsoons and violent hail-making clouds in the Midwest. Three other planes, operating out of Miami International Airport, will carry on for the worn-out veteran.

Further evidence of U.S. mobility: about a fifth of American households shifted residences within a year. Renters were about four times more likely to have moved than homeowners. The West had the highest proportion of households on the move, 25.7 percent. For the Northeast, North Central and South the proportions were 13.9, 17.7 and 20.5 percent, respectively. The figures are from the 1973 Annual Housing Survey conducted by the Census Bureau for the Department of Housing and Urban Development.

Will European firms adopt vacation travel awards as a stimulus to their employees? The U.S. Travel Service hopes so (if the destination is the United States) and promoted the idea recently to more than 200 Spanish business executives. Representatives of travel firms described their services in this field, and U.S.-based corporations told of their successes with the program. The U.S. Travel Service has a film in Spanish, German, Japanese, French or English that tells the whole story.

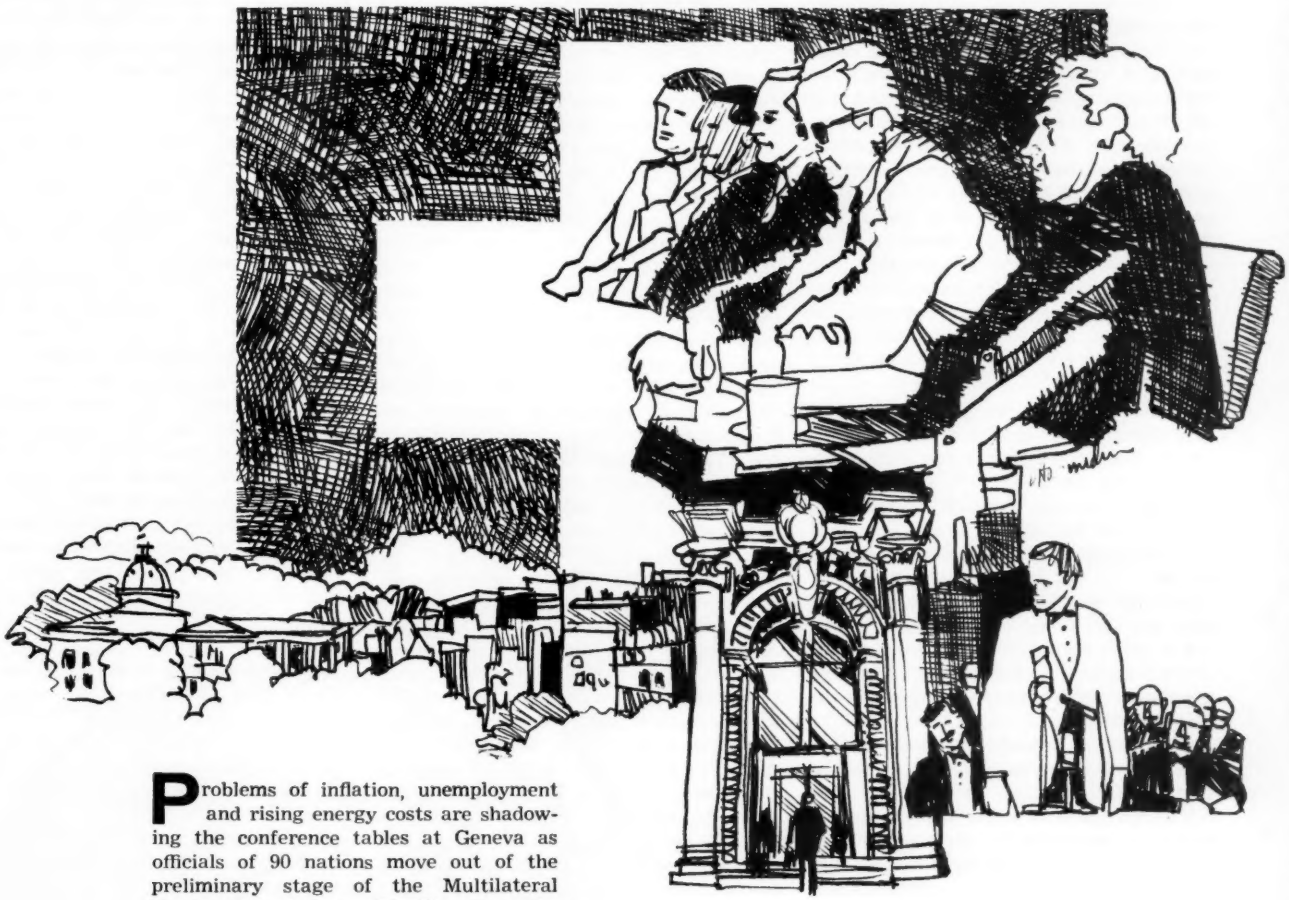
One of the noteworthy events of the Bicentennial year will be a major international trade exposition. The Chicago Association of Commerce and Industry will sponsor the exposition at the city's lakefront Navy Pier from July 1-18. Thousands of foreign businessmen are expected to attend, along with U.S. buyers, and a total audience of about 500,000 is in prospect. Navy Pier is being reconstructed into a modern display facility. Exhibit areas consist mainly of two halls, 65 feet wide and 2,260 feet long. While the main objective of the Chicago International Trade Exposition is commercial expansion, there will also be exhibits on U.S. economic history, with special emphasis on Chicago and the Midwest. For more details write Chicago Assn. of Commerce & Industry, 130 S. Michigan Ave., Chicago, Ill. 60603.

Eximbank will move faster on financing feasibility studies for large capital projects abroad. Up to now Eximbank officials had looked on such studies as leading to a later request for financing of the project itself. Much staff time was spent reviewing the creditworthiness of the proposed project. Delays often resulted. In the future decisions will be based principally on the creditworthiness of the borrower or guarantor, and Eximbank will disclaim any implicit commitment to finance the final project. The studies will be financed simply as exports of services, and speedier decisions on them may lead to greater use of the program by U.S. engineering firms.

About 1,000 trade experts in the U.S. business community are being asked to stay in harness as export advisors to the government. President Ford is extending the terms of his 22-man President's Export Council to January 1977. The Commerce Department is similarly extending the tenure of members of Regional and District Export Councils. In addition to their advisory capacity, the Councils have developed a strong public opinion and business support of aggressive expansion of U.S. exports.

A consumer education program is being proposed to expand efforts of schools and communities. It would offer federal grants to schools and organizations, and support model community education projects, teacher training programs, and courses for special groups such as those with limited English-speaking ability. President Ford recently said that the Federal Government should guarantee to all citizens the right to consumer education. Recent studies have indicated that a great number of consumers lack the educational tools necessary to make reasoned planning and buying decisions.

Earnest Bargaining Begins in World Trade Talks



Problems of inflation, unemployment and rising energy costs are shadowing the conference tables at Geneva as officials of 90 nations move out of the preliminary stage of the Multilateral Trade Negotiations (MTN). But the U.S., for one, is urging the negotiators to press ahead in the give-and-take bargaining sessions and emerge with an overall package of agreements by the end of 1977.

The current round of worldwide negotiations is the seventh since the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947. The six previous efforts have resulted in a substantial reduction in the level of tariff barriers. World trade in products and services has increased tremendously, so that 16 percent of world production now crosses national borders, twice the proportion of 25 years ago. National economies are consequently more open to each other and thus vulnerable to actions taken by others in the international arena. Strong domestic pressures arise to counter this vulnerability and to insulate individual economies from the shocks of the world's fluctuating recessionary trends.

Against this background the current MTN sessions reached a turning point last month as the Trade Negotiations Committee met in Geneva for its sixth plenary session. The meeting capped the preliminary negotiating stage begun last February when the Committee set up six negotiating groups for exploratory trade problem discussions.

Ambassador Frederick B. Dent, the President's Special Representative for Trade Negotiations and head of the U.S. delegation, put the 1977 deadline before the negotiators. He reminded them of the declaration made by six heads of state in November at Rambouillet, France, calling for completion of the negotiations in 1977, and he outlined the areas where progress should be made this year. A general consensus was reached support-

ing the major elements of the U.S. proposal. Some difficulties were also emphasized: the handling of agricultural trade, and the question of proper mechanisms to encourage the exports of the developing nations.

Ambassador Dent cautioned countries against taking unilateral measures which could easily lead to retaliation by others and undo the results of previous negotiations. He noted that the present international mechanisms for achieving cooperation in trade matters appear to be inadequate to meet the new problems which have emerged since the Smithsonian monetary agreement and the oil crisis. Political will on the part of all countries will be required to insure that this round of negotiations results in a framework for the conduct of world trade which is sufficiently flexible to balance the twin interests of maintaining strong national economies and continued international cooperation.

Work program for 1976

In order to meet the 1977 target date Ambassador Dent identified nine goals on which negotiators should focus their efforts during 1976:

- agreements on tropical products;
- a tariff formula as a starting point for achieving a substantial reduction in tariffs;
- a framework for dealing with subsidies and countervailing duties;
- a draft standards code;
- an agreed procedure for achieving meaningful liberalization of quantitative restrictions;
- agreement on the basic concepts that should be covered by improved safeguard provisions;
- a review and selection of sectors where complementary negotiations are feasible and will contribute to the goal of maximum achievable liberalization;
- parallel progress in achieving special and differential treatment for the developing countries in the various elements of the negotiations;
- negotiation of approaches to a number of issues which have not yet received adequate attention in the deliberations. Examples: restraints affecting exports; a government procurement code, currently being explored elsewhere; dispute settlement procedures, relevant to a number of negotiating issues; treatment of tax practices affecting trade flows; development of a code of conduct to eliminate unethical practices that threaten distortion of trade.

Completion of these tasks will demonstrate the willingness and ability of governments to undertake more than traditional negotiations on tariffs and quotas. Tangible progress in areas such as dispute settlement and supply access would represent a major step toward strengthening international mechanisms for coordinating national economic policies.

Although general consensus was reached on virtually all of the U.S. proposals, certain themes emerged during the Dec. 9-11 meeting which highlighted the continuing divergence of views among delegations on certain crucial issues.

Impasse on agriculture

Overshadowing the meeting was the continued impasse between the U.S. and the European Community concerning the treatment of agriculture in the MTN. The U.S.-Common Market deadlock centers on the procedural question of structuring the work to be done by the Agriculture Group.

The Community views the Agriculture Group as having sole responsibility for the conduct of negotiations on all issues affecting agricultural trade. Specifically the Community has taken the position that any solutions developed in other negotiating groups should not be applied to agricultural products. By precluding discussion of agricultural issues in any forum other than the Agriculture Group, the Community is seeking to minimize the impact which general solutions or codes in the tariff and nontariff measures areas would have on its Common Agricultural Policy (CAP).

The United States has taken the position that movement toward the reduction or elimination of trade barriers in the agricultural field should proceed in conjunction with efforts to liberalize industrial trade. To this end the U.S. has proposed that joint meetings between the Agriculture Group and other negotiating groups be held regularly to facilitate the negotiation of solutions which could be applied to both industrial and agricultural products.

A compromise was reached at this TNC meeting which facilitated agreement on a work program for the Agriculture Group. The compromise provides for bilateral notifications of tariff and nontariff measures affecting agricultural products other than those covered by the present subgroups on meat, dairy and grains. These notifications will provide the basis for consultations among countries concerning trade barriers in the agricultural field. Following the completion of this consultation exercise, the Agriculture Group will meet again to outline the next stage of its work program.

LDC views

A second theme which underscored an increased recognition of the political facets of the MTN was voiced by spokesmen of many of the less developed countries (LDCs). The LDCs believe that the developed countries have been too slow to embrace the Tokyo Declaration concept of special and more favorable treatment for LDC products, although they recognize that this can be partially attributed to the complexity of the issues involved.

Developed country spokesmen reiterated their view that the negotiations should cover all products of export interest to the LDCs and renewed their commitment to improve the international framework for the conduct of world trade particularly in relation to the trade of developing countries.

For the United States, Ambassador Dent emphasized the need to insure the LDCs a fair chance to participate more fully in world trade. He indicated that a first step in this direction could be taken with the conclusion of the negotiations on tropical products. The developed countries, including the U.S., are in the process of preparing substantive responses to LDC tropical products requests and it is expected that initial offers will be tabled by March 1.

The U.S. recognizes the need to make a special effort to devise differential treatment to take into account the particular handicaps faced by developing countries. Ambassador Dent noted, however, that such treatment needs to be carefully designed to deal with the unique problems of individual countries and without detracting from the basic Most-Favored-Nation principle of the GATT.

The Tokyo Round

The current negotiations are known as the Tokyo Round because they were officially opened at a Ministerial Meeting in Tokyo in September 1973. Of of the 90 countries participating in this Round roughly four-fifths are developing countries.

Objectives of the Tokyo Round include: further reductions in tariff rates; fairer access to supplies and raw materials; an improved framework for the conduct of world trade; the securing of additional benefits of international trade for the developing countries; and the elimination, reduction or harmonization of many nontariff barriers.

Although launched in September 1973, the substantive phase of these negotiations was delayed until the February 1975 TNC meeting, pending the enactment of U.S. trade legislation in late 1974. Negotiating groups were created at the February TNC to explore solutions to problems in six areas: nontariff measures, tariffs, agriculture, tropical products, safeguards and sectors. Some of these six negotiating groups established subgroups on specific topics. Thus, the nontariff measures group established a subgroup on quantitative restrictions, technical barriers to trade, customs matters, and subsidies and countervailing duties.

COMPUTER

Can Help U.S. Producers Return Technical Leadership

This article is based on a recent speech by Dr. Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology.

The computer is emerging as a major force for helping U.S. industry reassert its technological lead among the world's economies, by taking full advantage of the benefits of standardization.

Virtually all U.S. exports are high technology goods — agricultural on the one hand and manufactured on the other. These products are the embodiments of our technological lead. For exemple, from 1960 to 1973 this country had rising trade surpluses in such items as non-electrical machinery, aircraft, computers, and chemicals. All of these items are technology intensive, using technologies where the U.S. definitely has the edge over the rest of the world.

But during the same time period there was a declining trade balance in other items, such as motor vehicles, steel products, electronics and communications equipment, and textiles.

These items are also technology intensive, but in these products the traditional technological advantage has not been retained. For example, both the basic design of automobiles and the manufacturing processes by which they are made are virtually identical in the United States, Europe and Japan. The same assembly line techniques, computer scheduling, and robot spot welding now appear in auto plants around the world.

During the last decade the United States has been losing ground in the race for technological superiority. Its traditional lead still exists in many areas, but it is being eroded. There is no question but that U.S. technology faces some serious problems. The deterioration in the foreign trade position is only one of the most far-reaching of those problems.

The decline in U.S. productivity is another problem area, since an increase in productivity provides the only *real growth* in the country's economic well being. Without productivity growth, money income can increase through inflation, but real income and real material well-being will not.

In the two decades following World War II, U.S. productivity growth averaged about 2.5 percent annually. But in the period from 1965 to 1973—which included a few boom years—productivity growth slipped to an average of 1.7 percent per year.

Looking at the productivity situation on a longer-term basis, average annual productivity increases in the U.S. in the period from 1950 through 1974 amounted to 1.9 percent. This figure compares with 5.2 percent in Germany and 7.4 percent

in Japan. The contrast is startling and frightening, and obviously cannot continue for too much longer.

As part of the answer, computer-aided manufacturing (CAM) systems in particular, offer important opportunities for improvement in the U.S. technological situation, in productivity growth, and in its international trade situation.

Application of this technology to make more efficient use of U.S. capital and labor resources will increase productivity, as well as allowing this country to sell its goods at more competitive prices in international markets.

How much will it increase productivity? CAM techniques could improve productivity by hundreds or thousands of percent, and manufacturing costs would decrease at the same time. Consider these statistics: numerically-controlled machine tools typically increase productivity by factors of three or four. Computer-aided design systems have been demonstrated to yield increases by factors of six to seven, or more.

Productivity and capital

There is a direct, probable relationship between increased productivity and increased capital investment. But here, too, foreign competitors are rapidly moving ahead of us. Take the cases of two of our most successful trading partners. Japan has twice the capital investment rate of the United States and West Germany's is 50 percent greater than ours.

In addition, as Dr. Michael Boretsky, an economist in the Office of the Secretary of Commerce points out, buying patterns for plant and equipment purchases tend to differ among countries. American firms tend to buy more air conditioners for factories and fewer machine tools, Dr. Boretsky reports. As a result, U.S. tools are older and productivity increases are lower.

There is significant discussion nowadays on the problem of capital investment and whether government action is needed to stimulate new investment. Whatever the outcome of that discussion, one thing this nation can and must do is make maximum use of the money it is investing.

One way of improving efficiency of capital investment is to develop appropriate standards and performance measures. Standards help to insure that all of the components of manufacturing systems—whether purchased from several different manufacturers or from one maker—work satisfactorily and fit together correctly. This is particularly true with computer-aided manufacturing systems where the component parts of one system come from many diverse manufacturers including computer, sensors and instrumentation, machine tool, and materials handling system manufacturers.

Standardization can also significantly improve productivity because of its ability to get a larger, quicker return for every capital investment dollar. It also holds real promise for technology transfer and improvement.

In a sense, standards are solutions to common problems. They provide a means of communication and understanding between buyers and sellers in the free marketplace. Without at least *de facto* standards, each buyer must develop integrated computer-aided manufacturing systems for his own use. Because of the scope of such an undertaking, only the largest companies could attempt it.

For example, the computer-aided design systems of Lockheed, Mc-Donnell-Douglas, and General Motors required approximately 50 to 75 man-years to develop. Even the simplest application of computers in manufacturing can consume a man-year of effort in interfacing and writing special computer programs; this expense may easily exceed that of the original computer system itself.

Standard computer languages, data base formats and interfaces can improve the transferability and compatability of computer-aided manufacturing systems. They can also develop a larger market for software and hardware components of CAM systems and thereby increase the overall effectiveness of capital investment.

The trick is to develop standards to improve communication and compatability but not to freeze out the possibility of technical innovation.

Types of standards

Some standards are mandatory. For example, when buying a gallon of gas or a pound of potatoes, those units are controlled by law, by state and local governments using standards traceable to the National Bureau of Standards. Hopefully those units will soon be replaced by metric units.

There are also mandatory standards for flammability of carpets, children's sleepwear, and other apparel fabrics.

Another class of standards which are voluntary industry standards which are determined by agreement among concerned parties. There are now more than 23,000 voluntary standards in use created by more than 400 private sector organizations. They cover a multitude of products, practices, test procedures, materials, and other characteristics.

The driving force behind voluntary standards is economic. The first step in this direction was taken at the beginning of the 19th Century, when Eli Whitney produced the first rifles from interchangeable parts. This process eliminated hand assembly of rifles, making production simpler and less expensive.

Mass production is the logical extension of this concept, and it requires standardization throughout the entire economy. In fact, it is hard to imagine a time during this century when nuts and bolts wouldn't fit together unless they came from the same manufacturer. Such a situation would obviously bring modern assembly lines screaming to a halt.

Why voluntarism works

Voluntary standards work because of the economic forces that are involved. Standards can be a powerful management tool to improve efficiency and reduce costs. This is, of course, not a new finding.

In 1920, Herbert Hoover initiated a study of six industries as President of the Federated American Engineering Society. The conclusion: Nearly 50 percent of the cost of production and distribution could be eliminated through standardization and simplification. Fifty percent of the cost of production and distribution is worth the large amount of effort needed to reach voluntary standards in any manufacturing industry.

Many people have a negative reaction to standards. The word often creates an image of rigity that excludes technological change. Obviously, any voluntary system can only work as long as the parties involved believe the stanards are useful. When change is appropriate, change will occur under a voluntary system.

Standards for CAM

Most engineers and computer scientists readily agree that modular design is a good philosophy. Indeed, that is the concept that is most appropriate. The standards that NBS feels are most needed for computer-aided manufacturing systems are the interface specifications that allow all of the verious modular components of manufacturing systems, both hardware and software, to fit together without expensive special engineering and computer programming. This concept is particularly important to medium- and approximately three fourths of the value of shipments in the discrete parts manufacturing industries.

Standard vocabularies, standard languages, data base formats, and interface specifically are all elements of CAM standards work carried out by various organizations. And, stimulating the development of the programs of the Institute of NBS.

It is a major challenge—developing appropriate voluntary standards to allow all of this country's industries to communicate with each other and efficiently interface their products into integrated manufacturing systems. If successful, the effort will increase productivity and ventually improve America's standard of living and international trade position.

Commerce Secretary Morton made these remarks on the place of design in our society at a recent meeting of the Federal Regional Design Assembly. This issue of the magazine is at least a partial response to his call for more imaginative design in federal publications.

Designers
Can Make Life More Livable, Explain The Unexplainable

Quality of life, as I see it, means a lot more than just clean air or water, although they certainly have a great deal to do with it.

But I believe that quality of life must also embrace the beauty of our surroundings—indoors and out—and the kind of spiritual lift we get when we are in an environment of well-designed and functional works of man.

Yet, the man-made environment is always superimposed upon the greater natural environment. It is, in the last analysis, an intrusion—and there has got to be a better mating between what we do here on earth, with our drills and air hammers and earth movers and arts and crafts and skills, and the setting that nature has put around us.

The sands of time are, for all practical purposes, infinite and eternal—while the footprints we leave are infinitesimal and fleeting. Yet we can put the sand and the footprint together in a way that is exciting and meaningful for the generation to come; and that generation, building upon what we have done, can contribute further to the next generation.

The recent Federal Regional Design Assembly was part of the ongoing Federal Design Improvement Program of the National Endowment for the Arts.

The Department of Interior has the delicate job of balancing man's needs against nature's achievements in the National Parks. Obviously, you have to let the people into their own parks, and accommodate their needs; but if you put a sore thumb in the middle of a National Park, believe me, you get some mail.

So that problem is always with us. Like the solitary, unspoiled beach that nobody knows about except a chosen few. Then someone leaks the news and before you know it you have a resort that is wall-to-wall with human beings trying to find a place in the sun.

I'm still very much concerned about what we tend to do to the great outdoors, about our apparent *lack* of concern for balance and harmony—even though I no longer have the National Park Service on my organizational chart.

In fact, the concern goes even deeper now because there are a lot of things on the Department of Commerce organizational chart that impact upon the problem.

The oceans and the atmosphere are two examples. New creations of science and art—and the patents and trademarks to protect them—are others. Standards of measurement are still another. And of course, the promotion of business and industry to accommodate an economy growing at a stable rate, creating good new jobs, and looking out for another standard: the American standard of living.

In all of these, to one extent or another, the difference between good and poor design will determine whether our intrusion upon nature exerts a beneficent impact or an unacceptable one. Whether we achieve balance and harmony— or a disruption that diminishes the quality of life.

In the nostalgia craze that seems to have taken hold as we aproach the nation's 200th birthday, many people seem to want to go back to the good old days before dirty industries and automobiles began polluting the air. Life in America 150 years ago seems to have been idyllic—since no one alive today remembers what it was really like.

But we *do* have records. And they tell us that life in this country 150 years ago was, for one thing, very brief. The life expectancy of males was 38 years—and a pretty gruelling 38 years it was, too—with a 72-hour work week with an average pay of $300 a year.

Woman's lot was even worse, working 98 hours a week, scrubbing floors, making and washing clothes by hand, bringing in firewood, cooking in heavy iron pots, and fighting off insects without screens or pesticides. Most of the clothes were rags by present standards. There were no fresh vegetables in winter. Vitamin deficiency diseases were prevalent. Homes were freezing in winter and sweltering in summer.

Every year some kind of epidemic turned up, and chances were high that at least one person in each family would be carried off. As to pure fresh water, in 1793 one person in every five in the city of Philadelphia died in a single typhoid epidemic from polluted water.

Many people in those days never heard a symphony orchestra; never saw a work of art; never traveled more than 20 miles from their birthplace during their entire lives.

That is the "good and simple life" from which science and technology, and American business, industry and commerce have saved us.

But technology, we hear, has also spawned terrible weapons of death. Yet, in the late 13th century, Genghis Khan and the Mongols—with the technology of the bow and arrow—raided an area stretching from China to Central Europe, and killed as many people as two world wars and Hitler put together. In fact, they destroyed a much larger proportion of a much smaller population than gunpowder and aircraft and the atomic nucleus in modern times.

So I don't think there's any way we're going to turn back the clock, and I really don't think that we as a nation want to.

We are obviously committed to progress—and the nature of that progress becomes more and more dependent upon the principles of excellence in design.

Good design, after all, makes good economic sense—and economic sense in today's world is more and more the name of the game.

Federal agencies, for example, spend a billion dollars a year or more on the construction of office buildings and other installations, plus millions more on publications, exhibits and films, and other instrumentalities for carrying out the public business. I think that kind of outlay buys us the right to insist upon maximum value—both esthetically and functionally—for the taxpayer's money. And I think, rather than being simply concerned with original cost, it is the designer's job to work in terms of the total cost of ownership over the life of the product.

Spending an added increment right at the beginning to insure a good functional lifetime design will almost always cost less over the long term than poor work that requires constant and excessive maintenance, refurbishment and premature replacement.

That argument, in fact, takes on added emphasis in this era of compounding energy problems. The need to conserve our dwindling stores of energy and fuels, and to develop new sources and systems of power, opens up a whole new spectrum of challenges. To name just a few:

- New insulation methods and materials
- Innovative building materials
- Integration of solar heating, cooling and electrical generation methodologies into existing and new buildings
- Total integrated energy systems, such as the Department of Housing and Urban Development is experimenting with
- The need to design the various elevations of buildings to take maximum beneficial advantage of varying diurnal and seasonal light and temperature conditions.

All of these considerations, and a great many others will present designers, architects and planners with a host of exciting new challenges—and greater demands than ever for excellence in design.

Closely related to economics—in fact, an inseparable part of it—is the essential matter of increased productivity. Productivity is made up in part of sufficient capital investment to bring on stream newer and more productive technology, to underwrite an adequate pace of research and development, and to promote the education, training and health of our workers.

But improved productivity is also very largely a function of design—the design of the places where people work. Behavioral experts assure us that people respond and perform better in attractive surroundings. Most people knew that all along, even without hearing it from the experts. Design at its best brings out the best in people.

Even such a seemingly small thing as a window with a view of the sky and some greenery and a passing bird or two can make a great deal of difference. It may not be transcendental meditation, but the need to look away now and then from a machine or a typewriter or a desk—to gaze into the middle distance, as the saying goes—is a very fundamental one.

To my mind, what we need more than anything else is courage in our design—a willingness to depart from the conventional—to exploit the new technologies to the maximum—to take advantage of the creativity of each new generation—to give the young people the chance to express their own new and unique design ideas.

Not just in buildings—federal or otherwise—but in graphic design, the tools of communication, the refurbishment and recycling of our historic sites, the renewal of our cities . . . in every area where design makes all the difference between success and so-so.

In graphic and communications design, for example, I can think of at least two instances in the federal establishment where it can be absolutely critical.

The first is that instrument of torture and frustration that is romantically referred to as the IRS Form 1040. Practically every citizen of this nation has to look at that thing once a year; worse than that, he or she or both have to figure out how to fill it out.

Well, over the years, under a series of Internal Revenue Commissioners, the form has become not only more attractive but a great deal more simple to execute. That is certainly its own tribute to the excellence of the designers.

The point is, though, that while designers have not made it a pleasure to fill out the Form 1040, they have at least gone a long way toward making it possible.

The other example that comes to mind has to do with what I call, for want of a better term, "economic illiteracy" of a great part of the American people. Economics has been called the "dismal science"—but I have to say that if more people don't understand the fundamentals of how our free enterprise business economy works for them, things may get a lot more dismal.

Poll after poll and survey after survey show that most of the people overestimate business profits by about 400 percentage points. Or they feel, in other words, that business is making far too much money at the expense of everybody else. Yet, at the same time, everybody is in favor of more and better jobs, higher real incomes, and a constantly rising standard of living for all.

Unfortunately, all those good things are not to be found under a cabbage leaf, nor are they dropped down the chimney by the stork. They come from business making a sufficient rate of profit both to reinvest in plant and equipment and to attract capital.

Yet these economic facts of life seem to be unknown to a majority of the American people—and I think that a massive job of education is called for. Well, you can't pass a law making people listen to Peter Drucker's lectures, or read Paul Samuelson's textbook. But there has to be some way to get the fundamentals of American economic life across to the people. The Advertising Council is working on a series of public service ads to help with this problem, and we have great hope for that.

But I think some kind of easily understandable and *well-designed* booklet on how our economy really works is a very genuine need. I say well-designed because it has to be such that its very attractiveness will make people *want* to read it. That isn't very easy, and as I say, you can't legislate it.

Economics is far too vital to be left to the economists *or* the legislators—so I throw that out as another of the challenges to creativity that face today's designers. ☆

Energy Management Digest

OILFIELD EQUIPMENT . . . The total value of U.S. oilfield machinery and equipment produced in 1975 jumped 48 percent to reach $2.9 billion. About 44 percent of the 1975 total will be exported, according to estimates of Commerce's Bureau of Domestic Commerce, but the increased output assured an adequate supply of oilfield machinery for domestic as well as foreign demand. Nevertheless, the Bureau notes that future planning by drilling contractors is still required, because major pieces of drilling equipment are custom-made to special requirements and the lead-time for special castings and bearings used in oilfield equipment may run from six to twelve months.

NO STRAIN . . . A special study group of the Nuclear Regulatory Commission attributes the cracking of pipes at six boiling water nuclear reactors to a combination of stress, water chemistry, and the type of material used in making the pipes. The study group reports that although additional cracks may develop, they do not pose a threat to public safety since they can be detected by periodic inspection or sensitive leak detection equipment. In no instance was the structural integrity of the pipes affected by the cracks. The report recommends: Increased surveillance for cracking; using pipes manufactured from material less susceptible to the type of corrosion that caused the cracks; and studying possible changes in operating procedures to reduce the high level of oxygen contributing to the corrosion.

GETTING AT THE GAS . . .Natural gas production in Wyoming and the Rocky Mountain area in general should get a boost from a recent agreement between the Energy Research and Development Administration and El Paso Natural Gas Co. The contract calls for massive hydraulic fracturing of extremely tight natural gas formations in the Green River Basin of Sublette County. Post-fracturing production data will be furnished to ERDA for one year. ERDA will then publish results of the project, making it available for use by other natural gas producers. Experts say that some 240 trillion cubic feet of recoverable natural gas is trapped in the Green River, Piceance and Uinta Basins alone.

EMERGENCY PROCEDURES . . . The use of shutdown equipment and procedures to control energy piping systems during emergencies will be explored at an April symposium in Chicago sponsored by the Institute of Gas Technology. The session is primarily intended for design and operating personnel concerned with rapid shutdown of piping-intensive processes such as gas distribution and transmission, liquid pipelines, and refineries. In addition to IGT staff members, there will be presentations by representatives of industries using rapid shutdown procedures and equipment, research organizations, regulatory agencies and equipment manufacturers.

PETROLEUM DEMAND DOWN . . . Demand for all petroleum products for the four-week period ending Dec. 5 averaged 16.62 million barrels per day—7.4 percent below the same period in 1974 and 4.9 percent below 1973, according to the Federal Energy Administration. Motor gasoline demand was 0.6 percent below the 1974 level and 1.6 percent above 1973. Residual fuel oil demand, however, was down 18.6 percent from 1974 and 16.3 percent from 1973. Demand for distillate was off 10.5 percent from 1974 and was 10.8 percent lower than in 1973.

NUCLEAR EFFLUENT REPORTS. . .The Nuclear Regulatory Commission is amending its regulations to require that certain fuel cycle plant operators report effluent monitoring results semiannually. Monitoring information is used to assess the control of releases of radioactive material to unrestricted areas, and to estimate potential exposures to radiation which might result from such releases. While the results of fuel cycle plant monitoring have been available to the NRC staff upon request, the reporting rule will permit a more uniformed method of data compilation and improve the ability of the Commission to assess the performance of licensees.

AVAILABLE SOLAR PRODUCTS . . . ERDA has compiled a catalog of solar heating and cooling products currently available to manufacturers, architects, engineers and consumers. The data was supplied by manufacturers and has not been evaluated by ERDA. More than 100 complete systems are listed, along with more than 300 component and subsystem products. Limited numbers of the Catalog on Solar Energy Heating and Cooling Products (ERDA-75) are available from the ERDA Technical Information Center, P.O. Box 62, Oak Ridge, Tenn. 37830.

Fluorocarbons, Under Attack, Play Significant Role In Five Major Industrial Sectors

Growing interest in the earth's stratosphere has recently focused on a group of chemicals called "fluorocarbons," also known as "freon." These chemicals are most commonly used as propellants for aerosol containers, refrigerants for a variety of applications and foaming agents for foamed plastics. Interest in them has recently escalated to grave concern.

Concern about the atmospheric impact of fluorocarbons stems from a scientific hypothesis which, though not definitely proven, is based on enough established information to warrant further—and immediate—research. The hypothesis in question states that some fluorocarbons (mainly F11 and F12) are so stable that when released into the atmosphere they are virtually indestructible. Fluorocarbon molecules, containing chlorine, fluorine and carbon, remain unchanged in the atmosphere until enough of them bond together to diffuse upward into the stratosphere.

Once in the stratosphere, the molecules are broken down by strong ultraviolet rays, releasing their component elements. The chlorine element then attacks the stratospheric ozone, breaking it down and, theoretically, reducing the important "ozone shield." The ozone shield is essential to life on earth, since it protects the earth from harmful amounts of utlraviolet radiation. Excessive amounts of such radiation could mean an increased incidence of skin cancer, and possibly lead to adverse modification of climate and biological processes.

Further investigation needed

Reaction to this theory has been strong—from the scientific community, environmental groups, industry and the media. The most extreme reactions have been voiced in calls for the immediate outlawing of fluorocarbon production and use, but even conservative observers feel that immediate investigation of the matter is essential.

The Inadvertent Modification of the Stratosphere (IMOS) Task Force, a 14-agency federal group founded to study the effects of man-made elements on the earth's atmosphere, is now concentrating its efforts on assessing the validity of the various theories being propounded on the stratospheric effects of fluorocarbons.

At the request of IMOS, and also of Congress, the Bureau of Domestic Commerce has undertaken a two-part study of the role and importance of fluorocarbon manufacture and use within the domestic U.S. economy. The first part of this study, *The Economic Significance of Fluorocarbons*, has been completed and published by the Government Printing Office. Work on the second part, an economic impact statement on the effects of curtailing or eliminating fluorocarbon production and use, has just been initiated.

Worldwide use

Fluorocarbons, in their many applications, are in use worldwide. In addition to the United States, which accounts for 50 percent of production, 22 other nations manufacture them. The question of regulating these chemicals, therefore, is not strictly domestic. It is conceivable that restrictive action in the matter by the United States would have but a weak impact on worldwide consumption.

However, various international bodies have now involved themselves in examining the fluorocarbon question, most notable the United Nations' Organization for Economic Cooperation and Development. OECD's Environment Committee is currently reviewing a draft report prepared by the U.S. State Department, *Fluorocarbons: An Assessment of Worldwide Production, Use and Environmental Issues*. The active involvement of such international groups should mean that any action taken regarding the future of fluorocarbons will be coordinated internationally.

The aim of the BDC study, however, is strictly to analyze the role played by fluorocarbons within the United States. According to Commerce Secretary Morton, "We all share concern for the possible impacts of ozone reduction on human health and well-being; but . . . there must be balanced consideration of the obvious impacts to the nation of adoption of restrictions. Such impacts could result from unilateral U.S. restrictions without regard to international accord that would lead only to loss of trade for the United States without sufficient compensating environmental benefits. Additional impacts could result from insufficient consideration of the time required for industrial adjustment."

U.S. industry

Eleven hundred million pounds of fluorocarbon products were produced in the United States in 1974; the production value of the six primary U.S. manufacturers was in excess of $500 million. In producing 50 percent of the free world's supply of fluorocarbons, the U.S. exported fluorocarbon products valued at more than $20 million.

Five industrial sectors would be directly impacted by possible restrictions on the production and use of fluorocarbons: primary fluorocarbon manufacturing; aerosol formulating; aerosol container and valve manufacturing; air conditioning and refrigeration, and plastics manufacturing. Of these, the most important in terms of end use are air conditioning and refrigeration, which play a vital role in the food, medical and construction industries. Conservative BDC estimates put replacement value for this equipment at more than $100 billion.

Existing refrigeration and air-conditioning equipment has been designed to utilize a specific fluorocarbon refrigerant, and cannot be effectively adapted to substitute refrigerants. However, major reductions in fluorocarbons released to the atmosphere can be made with improved servicing techniques, coupled with retrieval and recycling of refrigerants from equipment whose useful life is completed.

In many of their applications, fluorocarbons are the material of choice for reasons of economy, effectiveness or lack of a suitable replacement. Substantial energy and materials conservation has been made possible by the use of fluorocarbons. For example, fluorocarbons refrigeration systems are three to four times more energy-

efficient than most non-fluorocarbon systems. Much of the fluorocarbon-foamed plastics is used as thermal insulation; the fluorocarbon content provides substantially more thermal efficiency over non-fluorocarbon foamed plastics.

In many applications, fluorocarbons are the most economical material, and in the case of aerosol containers, they are by far the safest of all available propellants. For certain applications, such as sterilization and sanitizing of operating rooms, asthmatic inhalation units and special fire-extinguishing systems for aircraft engines and computer main-frame equipment, there is no known replacement.

Almost 600,000 U.S. workers are directly dependent on the production and use of fluorocarbons, representing an estimated payroll of $6.7 billion. Further, there are perhaps 1.5 million additional workers whose employment is indirectly dependent upon fluorocarbon products and applications. Restrictions on fluorocarbon production would lead to employment dislocation at a minimum and possibly increased unemployment in those affected industries.

Additionally, acceptable substitutions for fluorocarbons are not readily available for most industrial and commercial applications; and an extended period of time could be required to develop and establish market acceptance of new products to replace fluorocarbons. Industry is working hard to develop fluorocarbon substitutes, especially for aerosol products.

BDC spokesmen have emphasized that phase one of this study is no more than what its title indicates, an analysis of "The Economic Significance of Fluorocarbons." No attempt has been made to forecast the actual economic impact of any restrictions that may be imposed on fluorocarbon production; that will be done in phase two.

The report has established, however, that the fluorocarbon industry is a substantial one, and has become important to many other industries that rely on its products. Upon reviewing this report, Deputy Assistant Secretary for Domestic Business Samuel B. Sherwin stressed that the economic impact of possible restrictions on fluorocarbons must be considered in the formulation of national policies affecting their future production and use.

"The Bureau of Domestic Commerce is concerned about protecting the Earth's environment," he said, "but is also concerned about possible premature or unwarranted restrictions on the production and use of fluorocarbons. These chemicals are important to our national economy, and existing scientific data are not yet sufficient to determine the extent of any effect that fluorocarbons have on the earth's atmosphere."

Eyewitness To Space 'War'

Commerce scientists can, in effect, watch a "war" in space.

A new remote-sensing technique, developed by Commerce's National Oceanic and Atmospheric Administration, "sees" nitrogen oxide in the stratosphere, permitting scientists for the first time to calculate the actual rate at which nitrogen oxides destroy stratospheric ozone. This high altitude ozone layer shields the earth's surface from hazardous ultraviolet solar radiation.

The ground-based spectroscopic technique measures the light spectrum produced by such sources as the sun and moon shining through the earth's atmosphere. By isolating that portion of the spectrum caused by nitrogen dioxides, the amount of that chemical in the atmosphere can be estimated.

"If we know how much nitrogen dioxide is up there," explained Dr. John F. Noxon of NOAA's Aeronomy Laboratory (one of the Environmental Research Laboratories) in Boulder, Colo., "we can calculate the amount of daytime nitric oxide, which is the real enemy of ozone. And when we know that, we know the rate at which ozone will be removed."

"Much of the work thus far has been theoretical," he said, "based mainly on computer models and laboratory tests. Because of the expense, we have very few measurements of nitrogen oxides taken in the stratosphere. The ones we have were made by balloon-borne instruments and reconnaissance-type military jets. These give a fair idea of what nitrogen oxide levels were at isolated points in time. But, until now, we have had no method of making routine daily measurements to tell what the daily, seasonal, and latitudinal variations are."

Preliminary results suggest that atmospheric nitrogen oxides vary significantly with altitude, location, and season.

Scientists believe nitrogen in the atmosphere comes mostly from natural sources, mainly in the form of nitrous oxide which is produced by bacterial action in the soil and migrates slowly upward into the stratosphere. Once there, it reacts with excited oxygen atoms that have been knocked off ozone molecules by incoming ultraviolet radiation—a process called photodissociation. This turns the nitrous oxide into two nitrite oxide molecules, which are extremely efficient destroyers of ozone. Their assault causes the loss of one ozone and one molecular oxygen (which would otherwise build another ozone molecule) in each turn of the chemical wheel, with no loss of nitric oxide.

At night, when there is no solar radiation to drive the cycle, nitric oxide returns to the innocuous nitrogen dioxide form. This series of reactions is believed to place a natural limit on the amount of ozone in the stratosphere.

United States Now Member Of World Tourism Organization

The United States has just joined the World Tourism Organization, an affiliated agency of the United Nations headquartered in Madrid. The WTO has full intergovernmental status and replaces the 50-year-old International Union of Official Travel Organizations. The U.S. delegation includes representatives from the United States Travel Service and the U.S. Department of State.

Among the focal points of the new organization will be the collection of international tourism statistics, the reduction of travel barriers among nations and the preservation of historic and cultural resources which are tourism assets.

In another travel-related development, USTS announced that estimated expenditures of foreign tourists to the United States during the Bicentennial Era are expected to reduce the U.S. travel dollar deficit by more than $1 billion. The "travel deficit" is the difference between the amount Americans spend traveling abroad and what international tourists spend in the United States.

The 1974 travel deficit was $3.14 billion, 1 percent below 1973's. The 1975 deficit is expected to be $2.6 billion, a further decrease of 17 percent, and the 1976 deficit is expected to decrease to about $2 billion, or as much as 23 percent below the estimated 1975 balance.

Although American travel expenditures abroad will increase during 1975 and 1976, the growth rate for U.S. expenditures will be significantly lower than the growth rate for U.S. travel receipts from incoming visitors. Due to the Bicentennial, USTS expects foreign travel to the United States to grow at a greater rate than the international travel market as a whole, in terms of arrivals and expenditures.

Among the trends pinpointed by USTS analysts in upcoming tourism are:

- Increasing propensity for international travel from the middle and lower income groups;
- Greater incidence of charter and group tour travel;
- An increase in the proportion of women travelers.

Energy Labels Will Guide U.S. Refrigerator, Dryer Purchasers

Voluntary labeling of appliances' energy costs moves into high gear later this month when household refrigerators offered for sale across the nation begin carrying such labels. Also, clothes dryers have joined the list of products due to bear energy labels, which tell prospective buyers the likely cost of energy consumed by the appliance.

An amendment to the labeling specifications published in the *Federal Register* cleared the way for labeling household refrigeration appliances.

"Manufacturers now have all the information they need to participate in this phase of the Commerce Department's Energy Labeling Program for Household Appliances and Equipment," Asst Secretary of Commerce for Science and Technology Ancker-Johnson said. She urged manufacturers to display Energy Guide labels on their appliances as soon as possible, in order to help consumers make informed purchase decisions based on energy costs.

"With energy prices rising, consumers need information that can help them save money on their utility bills," the Assistant Secretary said. "The information on Energy Guide labels permits consumers to compare operating costs of various models and to buy the most energy- and money-saving model."

Energy Guide labels and specifications for individual appliances are developed by the Commerce Department's National Bureau of Standards, which supplies technical support and consumer information for the program. Many other organizations participate in development of final labeling specifications including manufacturers, other government agencies, and consumer groups.

Implementation of the program for household refrigerators, freezers and combination refrigerator-freezers had been delayed pending publication of this amendment. The original labeling specifications were published in the August 1 *Federal Register* (Volume 40, No. 149, pages 32415-32451). They provide information on procedures for testing and labeling appliances and instructions for manufacturers wishing to participate.

The amendment makes minor changes in the original design of Energy Guide labels, which will be attached to refrigeration appliances by individual manufacturers on a voluntary basis. The amendment also provides manufacturers with optional locations for attaching labels to the units.

Show dollar costs

Energy Guide labels for household refrigeration appliances show the energy consumption in kilowatt hours and the dollar cost of electricity to operate the appliance on a monthly basis for a particular unit. One of the most important and useful pieces of information on the label compares the monthly cost of energy of the particular unit to all similarly-sized and equipped units offered for sale.

By using this information and by comparison shopping for the most energy efficient unit, consumers could save several hundred dollars in electrical operating costs over the average 14-year lifetime of these appliances.

Household refrigeration appliances offer a major opportunity for energy savings, both on an individual and a national basis, since they are one of the largest consumers of residential electrical energy use in the United States. Only electric furnaces, water heaters, and central air conditioners use more residential electricity. It is estimated that Americans own and operate some 90 million refrigerators, freezers and combination units. An average combined unit, for example, uses more than 1450 kilowatt-hours and costs $58 a year (at a price of four cents per kilowatt-hour) to operate. About nine million new refrigeration units are produced each year.

Labeling of household refrigeration appliances is the second major milestone in the Commerce Department's energy labeling program which began in 1973. Energy Guide labels were approved for room air conditioners in May 1974. Nearly 95 percent of the units currently being produced display the labels.

In a related move, Commerce has added clothes dryers to the growing list of products which eventually will bear energy labels, and has asked for manufacturers' help in determining what appears on the labels.

Clothes dryers will be the sixth appliance group to be labeled under the Department of Commerce's Voluntary Labeling Program for Household Appliances and Equipment.

"Clothes dryers rank among the top ten appliances in terms of energy use and, therefore, offer consumers a major opportunity for conserving energy," Dr. Ancker-Johnson said. Noting that an averages electric clothes dryer uses 1050 kilowatt hours per year. Last year, 80 percent of the nearly 3.6 million clothes dryers sold in the U.S. were electric.

In addition to describing the clothes dryer labels, the proposed specification, published in the December 12 *Federal Register*, describes procedures for testing and labeling clothes dryers and contains instruction for manufacturers wishing to participate in the voluntary program.

Manufacturers, retailers, consumer groups and other interested persons are invited to participate in the development of a final specification for labeling clothes dryers by submitting before January 25 written comments or suggestions in four copies to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230.

Manufacturers participating in the Department of Commerce energy labeling program voluntarily agree to label their products with Energy Guide labels which indicate the product's energy consumption and its relative consumption compared to directly competitive models in the marketplace. The cost of energy to operate the product also appears.

Energy Guide labels and proposed specifications are developed by the Commerce Department's National Bureau of Standards, which supplies technical support and consumer information for the voluntary energy labeling program.

Spreading The Metric Word

The Commerce Department's National Bureau of Standards (NBS) has established a nationwide speakers bureau to provide information on the growing use of the metric system of weights and measures.

More than 125 educators, weights and measures officials, and other knowledgeable persons in 47 states already have agreed to act as resources for metric information in their regions.

Jeffrey V. Odom, chief of the NBS Metric Information Office, will serve as the contact point to link up interested groups with available speakers. Each speaker will receive detailed information and a set of slides from NBS, enabling the speakers to offer timely, authoritative information on the metric system and metric conversion.

Groups and organizations desiring information on metric speakers in their state should contact the National Speakers Bureau, Metric Information Office, Room A166, Technology Building, National Bureau of Standards, Washington, D.C. 20234. (301-921-2658).

Rome Fisheries Meeting Seeks To Improve On Recent Gains

Measures to strengthen the enforcement of new fishing quotas for different nations in the waters off the U.S. and Canadian coasts, and for much lower quotas in these waters for herring, whose stocks have been substantially reduced, will be among the subjects discussed at the Eighth Special Meeting of the International Commission for Northwest Atlantic Fisheries (ICNAF) to be held in Rome January 12 to 26.

A September meeting in Montreal brought agreement on actions which, when implemented, are expected to restore the depleted finfish levels of the Northwest Atlantic.

Officials of the National Marine Fisheries Service (NMFS) explain that matters to be considered at the January meeting will include procedures aimed at preserving evidence of violations of ICNAF conservation regulations. They point out that evidence of violations must be of such a nature as to hold up in the court systems of offending countries, since such cases must be tried in the courts of the countries whose fishermen have been accused of violations. Thus one of the goals is to establish procedures which will help preserve the maximum amount of evidence in the case of an apparent violation.

The complexity of the problem probably means that a great deal of discussion will be required before further improvements in the Commission's overall scheme of international enforcement can be agreed upon.

An additional question to be considered, NMFS officials say, is the nature of penalties to be imposed once violation of ICNAF fishing regulations has been substantiated.

At the Rome meeting formal scientific recommendations are expected to call for 1976 herring quotas substantially below current levels for the three major Atlantic stocks. No target numbers are available, but the 1975 total quotas and U.S. allocations for these stocks are as follows: Gulf of Maine, total 16.000, U.S.-10,759; Georges Bank, total 150,000, U.S.-8,400; Nova Scotia, total 90,000, U.S.-1,000.

'Most successful'

The Montreal meeting was characterized by David H. Wallace, Chairman of the U.S. delegation and Associate Administrator of Commerce's National Oceanic and Atmospheric Administration (NOAA) as "one of the most successful in the Commission's 25-year history from the standpoint of the United States."

A major accomplishment of the Montreal meeting was an agreement to reduce substantially the overall catch quota for most finfish species off the U.S. New England and Middle Atlantic coast from its 1975 level, while providing for an increased quota for U.S. fishermen.

At the preceding annual meeting in June, the Commission had established a 1976 quota of 650,000 metric tons, excluding squids, or effectively 724,000 metric tons for finfish and squid. The United States regarded this as unacceptable and registered formal objection to the regulation under the rules of the Commission. As a result of the Montreal Meeting, the Commission reduced the 1976 overall quota to 650,000 metric tons, including squids, which is 200,000 metric tons less than the 1975 quota. This level should provide a higher probability of recovery for the area's finfish within seven years, according to U.S. fisheries scientists.

Under the agreed allocations of this quota, the U.S. share is increased from 211,600 metric tons for 1975 to 230,000 for 1976. While nations with small quotas also received some increases, quotas of most Commission members were substantially reduced as follows: Soviet Union, 1975—301,800, 1976—177,250; Poland, 1975—129,250, 1976—76,500; Canada, 1975—26,000, 1976—18,000; Bulgaria, 1975—24,650, 1976—14,400; West Germany, 1975—24,850, 1976—14,900; Japan, 1975—21,250, 1976—18,000. Small quotas for France and Romania were unchanged, while East Germany's quota went from 28,850 to 48,750 metric tons.

A great deal of credit for the agreement at Montreal is given to the emphasis which the United States placed on the urgency for action, reinforced by a message from President Ford.

Another major achievement at Montreal was agreement to close virtually all of Georges Bank, a large area southeast of the Gulf of Maine and east of Cape Cod, to fishing by large vessels capable of catching valuable and depleted groundfish stocks. A large triangular area off Cape Cod and an area off the New Jersey coast were closed to fishing by similar large vessels under a previous ICNAF agreement.

Since this regulation applies only to large vessels, which in many cases are virtually floating fish factories, U.S. fishermen will not be affected.

As a means of enforcement, the Commission has an international inspection system under which the U.S. Coast Guard and NMFS officers are empowered to board foreign vessels and inspect both catches and logs. As a further improvement of this system, the Montreal meeting reached agreement on a system for the registration of all vessels fishing in the Convention Area.

Require advance notice

The new registration provisions require that fishing vessels planning to fish in the regulated waters give advance notice of their target species and the areas they are going to fish. Each vessel is required to carry a certification that its skipper is familiar with the regulations. This system is expected to assist member governments and international enforcement personnel in achieving more effective monitoring of fishing in the area.

Intensive aerial surveillance is also employed by the United States to monitor the size, deployment, and total catches of foreign fleets. Such surveillance detected apparent quota violations by Spanish vessels in 1974.

The vessels left the area after Spanish officials were alerted through diplomatic channels.

The newest member of the Commission is Cuba, which joined shortly after the Montreal meeting. The Commission has accepted the Cuban invitation to hold the 1976 regular annual meeting in Havana next June.

Behind the whole effort for better-controlled fishing is the growing threat of unilateral action on the part of various nations to protect the fisheries of their coastal waters due to the minimum progress achieved to date by the ongoing Law of the Sea Conference. The prospect that this threat may become a reality, in the United States as well as in some other nations, is believed to be inclining nations to greater cooperation in international fisheries management.

Conferences Scheduled

A series of informal conferences on government services to the domestic business community has been scheduled in Kentucky and Tennessee by Commerce's Memphis District Office, in cooperation with state and other federal agencies and local chambers of commerce.

A question and answer session will follow each presentation.

The schedule is as follows:

Jan. 14, Covington, Ky.; Jan. 15, Memphis; Jan. 20, Ashland, Ky.; Jan. 20, Jackson, Tenn.; Jan 27, Paducah, Ky.; Jan. 29, Kingsport, Tenn.; Jan. 30, Oak Ridge, Tenn.; and Feb. 3, Bowling Green, Ky.

For more information about times and locations, contact either the local Chamber of Commerce or Commerce's Memphis District Office.

Geothermal Energy Industry May Get Federal Guarantees

A proposed federal loan guarantee program would help the nation's geothermal energy program get on its feet.

The Energy Research and Development Administration's Geothermal Loan Guaranty Program would be designed to accelerate private industry's development of geothermal resources for producing useful energy by increasing the flow of capital into this emerging industry. Specifically, the guarantees are aimed at reducing financial risk by insuring lenders against the loss of principal and accrued interest on loans for producing energy from underground hot water and steam.

The proposal regulation was printed in the *Federal Register* on October 28.

ERDA's Division of Geothermal Energy estimates that in its first year the program could provide guarantees for loans of more than $200 million.

Although a broad range of activities is permissible under the regulation, in practice, the guarantees will be devoted almost exclusively to reservoir development projects leading to the production of electric power or of heat for industrial and other purposes. Projects aimed at producing early power on-line are of primary importance in the proposed regulation. The priorities also favor lenders who assume an unguaranteed portion of the loan.

The maximum federal guaranty will be 75 percent of the total cost of a project, not to exceed $25 million per project. The maximum loan terms is 30 years, but it is likely that shorter duration loans will predominate. The limit for guarantees to any one borrower is $50 million.

Criteria vary

Guarantees will be based on a variety of criteria, including an assessment of the technical soundness of a project, the borrower's ability to perform the work, and an available market for the product. Only those assets directly connected with the projects will serve as collateral for the loan.

Small firms are expected to be the chief beneficiaries of the program. Although larger firms are also eligible, lenders are less likely to seek federal guarantees for loans to companies that could repay losses from other corporate income, he said.

The Geothermal Loan Guaranty Program is provided for in Public Law 93-410, the Geothermal Energy Research, Development and Demonstration Act of 1974. Copies of the proposed regulation may be obtained from the Director, Division of Geothermal Energy, ERDA, Washington, D.C. 20545. The final regulation, which will be published soon in the *Federal Register*.

U.S. Industrial Capacity Usage Takes 4% Jump

Another sign of economic health, utilization of manufacturing capacity, is making encouraging progress. The nation's production facilities operated at 79 percent of their potential during September, which was 4 percent higher than the rate for both the preceding June and March, and only 7 percent below the pre-recession peak of early 1973.

In durable goods industries, the advance in the rate from June to September was 5 points, while nondurables went up only 2 points. The larger increase in durables came mostly on the strength of the motor vehicle industry performance, which reported a 13-point rise.

Stone-clay-glass rose 7 points in response to the pickup in construction activity. Primary metals rose 5 points, reflecting higher production due partly to the improvement in the inventory situation and partly to the buying of steel in anticipation of the October price increase. The machinery industries reported 2-point increases.

In nondurables, textile producers reported a 7-point increase, to 83 percent, reflecting continued improvement in demand for apparel and household furnishings. Increases also were reported by paper (5 points), petroleum (4 points), rubber (4 points), and chemicals (3 points).

Food, including beverages, declined 2 points.

The capacity utilization rate reported by large firms (assets of $100 million and over) rose 4 points, to 80 percent. The rates for medium- and small-sized firms rose 2 points and 1 point, respectively. The rate for primary-processed goods industries rose 5 points from June to September, to 78 percent of capacity. Advanced-processed goods industries rose 3 points, to 79 percent.

Capacity utilization rates are adjusted for seasonal variation.

The survey — conducted quarterly — asks manufacturers for actual and preferred rates of capacity utilization for the last month of each quarter. It has been conducted annually since 1965 and quarterly since 1968.

Calendar For Businessmen

Jan. 11-16—Tucson—Basic Industrial Development Course, Univ. of Arizona. Accredited by Amer. Industrial Development Council. For information, Kent Alexander, U. of Ariz. College of Business & Public Admin. (602-884-1252).

Jan. 13-15—Washington—Finance & Accounting for Non-Financial Executives, Georgetown Univ. For information, Betsy Girton, Continuing Management Education Program, SSCE, Georgetown Univ., Washington, D.C. 20057 (202-625-4353).

Jan. 15—Memphis—Energy Today & Tomorrow: Mid-South Outlook, Christian Brothers College. Sponsors: Memphis Area Chamber of Commerce & others. For information, Commerce Memphis District Office.

Jan. 18-21—Washington — Washington Gift Show, Sheraton Park Hotel. For information, Irene Weissman, Little Brothers Shows, 220 Fifth Ave., New York 10001 (212-689-7147).

Jan. 19-23—Phoenix—Fundamentals of Plastics seminar, Holiday Inn Scottsdale. Sponsor: New York Univ. School of Continuing Education. For information, Ms. Heidi Kaplan, N.Y. Mgt. Center, Dept. 14-NR, 360 Lexington Ave., New York 10017 (212-953-7262).

Jan. 20-21—Gaithersburg, Md. — Workshop on Standard Reference Materials for Coal Gasification and Liquefaction, National Bureau of Standards. For information, Donald Becker, NBS Energy-Environment Workshop Coordinator, Chemistry Bldg., A309, Washington, D.C. 20234 (301-921-2128).

Jan. 23—New Castle, Pa.—Business Opportunity/Federal Procurement Conference, Troggio's Restaurant. Sponsor: U.S. Rep. Gary A. Myers. For information. Robert Ludwiczak c/o Rep Myers, 206 Post Office Bldg., New Castle, Pa. 16103 (412-658-7727).

Jan. 25-27—Marlboro, Mass.—Update on the Copier Industry, The Learning Center. Sponsor: Institute For Graphic Communication. For information, IGC, 375 Commonwealth Ave., Boston, Mass. 02115 (617-267-9425).

Jan. 26-28—San Diego—Reinforced Plastics seminar, Hotel Del Coronado. Sponsor: New York Univ. School of Continuing Education. For information, Ms. Heidi Kaplan (address above).

Jan. 26-30—Chicago—Extrusion of Plastics seminar, Holiday Inn Lake Shore Dr. Sponsor: New York Univ. School of Continuing Education. For information, Ms. Heidi Kaplan (address above).

'Sprechtage' Aid U.S. Officers In Germany To Scout Trade Leads In Scattered Cities

How to cover the territory? This salesman's problem is met by U.S. Commercial Officers abroad, nowhere more acutely than in Germany. There a solution has been developed that goes under the name "Sprechtage"—"discussion days."

Germany is not only the third largest export market for the United States, but also has one of the most geographically decentralized industrial economies of any country in the world. Industrial plants are literally scattered all over the German landscape. Even within the individual consular districts of the six U.S. Consulates General there are major industrial concentrations remote from cities where the Foreign Service posts are located. Ideally, the successful commercial officer would travel literally from border to border of the consular district. Limits of time and money do not permit this.

To cope with this problem, commercial officers in Germany devised and refined a new technique for reaching businessmen in the far reaches of their consular district who normally would not become acquainted with U.S. Consulate representatives and the services they offer. This technique involves events which have been christened as "Sprechtage."

What exactly is involved here? The procedure might be described as the establishment of a branch commercial office in an outlying city for a one, or sometimes, two-day period. This is normally scheduled several weeks in advance in cooperation with a local German co-sponsor—usually the Chamber of Commerce. A mailing list covering all firms which might have an interest in U.S. imports or investment is developed. All of these firms are sent letters inviting them to schedule appointments on the appointed day. A selection of these firms and/or prominent political and economic figures from the area is also normally invited to a hospitality function. Representatives of U.S. state agencies with offices in Europe are invited to participate in most "Sprechtage" and usually underwrite, at least in part, the cost of the hospitality aspect.

BREMERHAVEN WAS THE SITE—*Discussing U.S.-German business prospects at a reception in connection with the November "Sprechtage" in Bremerhaven were (from left) Hermann Noe, president of the Bremerhaven Chamber of Industry & Commerce, U.S. Consul General Irving T. Schiffman, and Bremerhaven Mayor Alfons Tallert.*

Interview technique

On the day or days of the business appointments, appointments are scheduled at 30 to 60-minute intervals in meeting facilities normally provided free of charge by the local co-sponsor. The first part of the interview is conducted by an American officer or a Foreign Service local employee and covers the usual range of services and exchange of information. When the federal government business is completed, participating state representatives have the opportunity to discuss their own particular interests with the prospect.

Experience to date indicates that there are probably 50 cities in Germany where trade potential is sufficient to hold "Sprechtage" on a regular—perhaps biennial—schedule. Therefore, the Embassy in Bonn estimates that "Sprechtage" will remain an integral part of the commercial program and that 20 or 25 such events per year will be held indefinitely. Commercial officers at the various posts have continuously refined the technique by exchanging information about their procedures.

The first of the "Sprechtage" was organized by the Consulate General in Duesseldorf in Detmold on June 25, 1974. This initial venture was followed by 30 others. Each of these events has been held in a different city and each Consulate General has participated in the program. The number of trade contacts and trade and investment opportunities generated by these "Sprechtage" held to date are impressive: 593 reception guests, 556 appointments, 666 trade opportunities, 52 investment opportunities. These bare statistics convey only a part of the effectiveness of the technique, it is felt by the U.S. Commercial Officers, as they strive to "cover the territory."

Official Trade Briefs

This article is another in a series of reports that describe actions affecting world trade, as compiled by the Legislative and Tariff Policy Division of the International Economic Policy and Research Staff's Office of International Trade Policy.

CONGRESS

Bills Passed—House: By a 249 to 166 vote, the House passed H.R. 9721 which provides for increased participation by the United States in the Inter-American Development Fund and the African Development Fund. The bill also provides for the entry of non-regional members — the Bahamas and Guyana — in the Inter-American Development Fund. The House rejected several amendments to the bill but accepted amendments which direct the U.S. representative of the Bank to offer resolutions to make use of light capital and intermediate technology industry a high priority of the Bank and to vote against loans and assistance to members who establish patterns of gross violations of internationally recognized human rights.

Confirmation—Senate: The Senate confirmed the nomination of Elliot Richardson to be the next Secretary of Commerce.

Bills Reported—Senate: The Armed Services Committee reported to the full Senate S. 961 which would establish, on an interim basis, a 200-mile fishery management zone off the coasts of the United States and establish a national marine fisheries management program. The bill was reported with amendments, together with supplemental and minority views.

Committee Hearings—Senate: The Committee on Commerce began, on Dec. 11 and 12, a series of hearings on "Prospects for East-West Trade 1975-80." Testifying were William Simon, Secretary of the Treasury; Rogers Morton, Secretary of Commerce; and William Casey, Eximbank Chairman. Other witnesses were Robert Ingersoll, State Department; Richard Bell, Department of Agriculture, and Clayton Yeutter, Office of the Special Representative for Trade Negotiations.

Several beneficial aspects of East-West trade were stressed by the witnesses, including improvement in the U.S. balance of payments, the trade's positive impact on the U.S. economy, and the positive contribution to improved political relations.

Senators Inouye and Buckley indicated Congressional concern about the trends in Eastern European and Soviet emigration and the possible strategic ramifications of technology transfer. More East-West trade hearings are to be scheduled.

The Subcommittee on Multinational Corporations of the Committee on Foreign Relations held hearings on a report entitled "Direct Investment Abroad and Multinationals: Effect on U.S. Economy." The Subcommittee received testimony from representatives of the labor and banking sectors. The Subcommittee on International Finance of the Committee on Banking, Housing and Urban Affairs held hearings on S. 2492 which would subject agricultural export agreements to Congressional review. The Subcommittee also heard testimony on the recent U.S.-Soviet grain agreement and the implications of such agreements on U.S. export policy. The hearings on multinational corporations and agricultural exports were recessed subject to call.

Committee Hearings—House: The Subcommittee on International Resources, Food, and Energy held a hearing on U.S. international grain policy. Testimony was received from Administration witnesses. The Subcommittee on International Trade and Commerce met and approved for full committee action H.R. 9503 which would lift the trade embargo on North and South Vietnam. The Subcommittee on Trade of the Committee on Ways and Means met in executive session for a briefing by Special Trade Representative Dent.

The Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce reached an agreement with Secretary of Commerce Rogers Morton concerning the availability to the Subcommittee of certain export documents containing Arab boycott information. Secretary Morton offered to provide the materials to the Subcommittee if the confidentiality of the documents were guarded. Subcommittee Chairman John Moss agreed to maintain the confidentiality of the materials.

SPECIAL TRADE REP.

Section 301—Discriminatory Foreign Trade Practices: The Chairman of the Section 301 Committee instituted an investigation upon receipt of a petition from Great Western Malting Co. which alleges unfair trade practices by the European Economic Community. Great Western complains that its loss of the Japanese market for malt is due to EEC subsidization of malt exports to Japan and other countries. The petitioner has not requested a public hearing, but interested parties are invited to submit their written views to to the Section 301 Committee, Office of the Special Representative for Trade Negotiations, Room 725, 1800 G St. NW., Washington, D.C. 20506.

A complaint was also received from the Miller's National Federation which charges that EEC export subsidies impaired sales of wheat flour to third countries. In the complaint, the petitioner states that the subsidy is sufficient to displace U.S. wheat flour sales to such countries as Jamaica, Saudi Arabia and Egypt. The petitioner requested a public hearing which will be held Jan. 24, at the Office of the Special Trade Representative.

STATE DEPARTMENT

The first ministerial meeting of the Conference on International Economic Cooperation (CIEC) convened Dec. 16-18. Representing the United States was Secretary of State Henry Kissinger, who met with ministers of 26 other countries. Created at the conference were commissions on energy, raw materials, development and finance. The four commissions will hold their first meeting on or about Feb. 11. Preceding these meetings, there will be a meeting of the Coordinating Group made up of the co-chairmen of the conference itself, Canada and Venezuela, and the co-chairmen of the four commissions. The task of the Coordinating Group on Jan. 26 will be to elaborate on and examine the terms of reference of the four commissions to determine whether they are adequate.

INT'L TRADE COMMISSION

Section 203—Import Relief Investigations: Upon receipt of a petition filed by the American Dinnerware Emergency Committee, the Commission instituted an investigation under Section 203 of the Trade Act of 1974. Purpose of the investigation is to gather evidence in order to advise the President as to the probable economic effect of terminating import relief currently in effect with respect to **certain ceramic tableware** on the domestic industry producing articles like or directly competitive with the tableware subject to relief. The import relief measures presently in effect are scheduled to end April 30, unless extended by the President. A public hearing in connection with this investigation will be held Jan. 20 at the International Trade Commission, 701 E St., NW., Washington, D.C. 20436.

Antidumping Cases: In a precedent-setting action, the Commission—in reporting its finding that sales in the United of **vinyl-clad fence fabric** from Canada at less than fair value (LTFV) are not injuring a U.S. industry—released information developed during the dumping investigation. In the past, the Commission has released its findings and statements of reasons but has not made public the information in its staff reports. Future decisions will be followed by the release of non-confidential reports pertaining to such investigations.

The Commission also announced its unanimous finding that imports of **chisels, punches, hammers, sledges, vises, c-clamps, and battery-terminal lifters** from Japan

which were sold at LTFV neither are injuring nor are likely to injure the domestic industry. As a result the tools will not be subjected to anti-dumping duties.

Upon the advice of the Treasury Department, the Commission instituted a 30-day inquiry with respect to **portland hydraulic cement** from Mexico in accordance with Section 201(c) of the Antidumping Act of 1921. Purpose of the inquiry was to determine whether there is no reasonable indication that an industry in the United States is being or is likely to be injured or is prevented from being established by reason of importation of the cement at issue into the United States. The Commission was unable to determine that there was no reasonable indication of injury to U.S. industry and returned the case to the Treasury Department. The Treasury Department now has six months to determine whether sales of the cement from Mexico at LTFV have occurred in the United States.

Section 337—Unfair Trade Practices: The Commission announced suspension of its investigation concerning unfair trade practices in importation of **monolithic catalytic converters** because of the proceedings in the U.S. Court of Customs and Patent Appeals.

Confidential Business Information Regulations: The Commission announced proposed amendments and additions to its Rules of Practice and Procedure 19 C.F.R. Chapter II concerning the treatment of business confidential information. The proposed amendments were published in the *Federal Register* of Sept. 2; written comments should be addressed to: Secretary, U.S. International Trade Commission, 701 E St., NW., Washington, D.C. 20436.

TREASURY DEPARTMENT

Countervailing Duty Cases: The Department announced its final determination that bounties or grants exist in the countervailing duty investigation of **canned hams and shoulders** exported from EEC countries, but additional duties are being waived. Under Section 331 of the Trade Act. the Secretary of the Treasury may waive countervailing duties otherwise assessable on an import if he determines that adequate steps have been taken to reduce substantially or eliminate the adverse impact of any bounty or grant and that the imposition of countervailing duties would jeopardize the multilateral trade negotiations underway in Geneva. In this case, a series of reductions in restitution payments on canned hams exported to the United States from the EEC had been made and EEC exports of hams to the U.S. have declined for the past two years.

The Department announced its final determination that no bounties or grants are being paid or bestowed on the manufacture, production or exportation of **float-glass** from France. The Department also determined that no bounties or grants are being paid for the manufacture, production or exportation of **cast iron soil pipe and fittings** from India. As a result of the negative findings, no countervailing duties will be assessed in these two cases.

An affirmative preliminary determination that bounties or grants are being paid or bestowed on imports of **cheese** from Norway was announced: that the consumer subsidy and basic support subsidy payments made to milk producers, as well as the freight subsidy program, constitute bounties or grants on cheese exported to the U.S. Final determination: by May 21.

The Department announced the final termination of the countervailing duty investigation regarding **oxygen sensing probes** from Canada. This termination was made because there have been no imports of oxygen sensing probes during the recent past and production will be discontinued.

Antidumping Cases: The Department announced the withholding of appraisement on **water circulating pumps, wet motor type,** from the United Kingdom, pending a determination whether the subject merchandise is being sold at LTFV within the meaning of the Antidumping Act of 1921. A final decision will be made wihin three months. Imports from the United States of these pumps during the period February through June 1975 were valued at approximately $230,000.

After due investigation, the Department has determined tentatively that **tuners** used in consumer electronic products exported by Tokyo Shibaura Electric Co., Ltd., are not being, nor are likely to be, sold in the United States at LTFV. In addition, written assurances have been given that future sales of tuners to the United States will not be made at LTFV. In view of the investigation results and the assurances, the Department gave notice that the Department intends to modify the finding of dumping with respect to tuners from Japan to the United States to exclude tuners sold by Tokyo Shibaura.

LABOR DEPARTMENT

Adjustment Assistance—Workers: The Department certified workers at several firms as eligible to apply for trade adjustment assistance. The Department found that these workers have become unemployed as a result of increased imports. The workers certified had been employees at the following firms: approximately 350 workers of OMC Lincoln, Lincoln, Neb., Addison, Ill., West Palm Beach, Fla., and Charlotte, N.C. **(golf carts);** approx. 200 workers of Brown Shoe Co., Owensville, Mo. **(women's shoes);** approx. 40 workers of Rogers Flies & Lures, Laman, Mo. **(artificial fishing baits and flies);** approx. 100 workers of GTE Sylvania, Batavia, N.Y. **(monochrome television receivers);** approx. 20 workers of Shellwater Associates, East Freetown, Mass. **(stainless steel fasteners);** garment workers at the following Philadelphia companies **(wearing apparel)**—140 workers of Beigmer Knitting Mills, Inc., 128 workers of Clover Knitting Mills, 140 workers of Stowal Knitting Mills, 21 workers of Surrey Knitting Mills, 30 workers of Wexler Knitting Mills, 300 workers of Battinger Knitting Mills, Inc., 30 workers of Barry Knitting Mills, 19 workers of Crescent Knitting Mills, 35 workers of London Knitting Mills, 50 workers of Moole Knitting Mills, 50 workers of Richline Knitting Mills, 88 workers of Somerset Knitting Mills and Eastern Knitting Mills, Blenheim, N.J., and 75 workers of Wilshire Knitting Mills; approx. 300 workers of Joslyn Stainless Steels, Fort Wayne, Ind. **(stainless steel);** approx. 90 workers of Wilson Sporting Goods Co., Milwaukee **(athletic footwear);** approx. 250 workers of Delvin Shoe Co., New York, and approx. 60 workers of Lesa Shoe Co., Dolgeville, N.Y. **(women's shoes);** approx. 375 workers of Cross Country Clothes, Inc., Northampton and Whitehall, Pa., approx. 100 workers of Deansgate, Inc., New Orleans, and approx. 150 workers of Lebow Brothers, Inc., Baltimore **(men's clothing).**

The Department denied petitions for trade assistance for workers of the following companies: approx. 100 workers of Abscold Inc., Ionia, Mich. **(compact refrigerators);** approx. 1150 workers of Wagner Electric Corp., St. Louis **(electrical motors, transformers and automotive brake products);** approx. 65 workers of Cambridge Tailoring Co., Inc., Baltimore **(men's clothing);** approx. 45 workers of F. Joseph Lamb Co., Warren, Mich. **(automated automotive machinery);** approx. 45 workers of Knickerbocker Clothing Co., St. Louis **(men's clothing);** 691 workers of Pan American World Airways, Inc., New York **(airline services);** approx. 150 workers of Michigan Plating & Stamping Co., Grand Rapids, Mich. **(auto bumpers);** garment workers at the following Philadelphia companies **(wearing apparel)**—10 workers of Cherry Knitting Mills, 65 workers of Devon Apparel Inc., 50 workers of M&M Knitting Mills, Inc., and 40 workers of Na-Lor Mfg. Co.

Investigation — Workers: Investigations to determine eligibility for adjustment assistance were instituted on behalf of workers of about 50 companies, mainly clothing, machine tools and stainless and specialty steel producers.

INTERNATIONAL

Foreign Anti-Dumping Action: On Oct. 29 the Canadian Anti-Dumping Tribunal issued its findings and ordered termination of the anti-dumping inquiry on 16-inch and larger color TV sets. The investigation centered on TVs exported from the United States, Japan, Taiwan and Singapore. Provisional duties and security will be returned to importers.

Trade Fairs, Centers

Laser, Electro-Optical Systems Show Boosts U.S. Share Of British Market

Thirty-eight American exhibitors walked away with what should be the lion's share of a high-growth market at a fall electro-optical systems and lasers exhibition at the London U.S. Trade Center. With the total U.K. annual market previously estimated at only $9 million, combined off-the-floor and projected sales amounted to $6.3 million.

Many of the sales were to non-British firms, which again underscored London's position as an international marketplace. Key buyers arrived from the low countries, Scandinavia and Germany; one U.S. firm even reported a $30,000 off-the-floor sale of fiber optics devices to a Brazilian firm. But for the most part, the exhibition proved that for carefully chosen products, with the right promotion, the British market is still a valuable source of opportunities for the American exporter.

International Fiber Optics, a first-time exhibitor, found the market to be ripe for its products. This new-to-market firm, with annual sales of less than $1 million, projected sales of $250,000 within 12 months. Signing its first overseas distributor, International Fiber Optics estimated annual sales to top $2 million within two years. Dicomed Corp.'s Vice President Wayne Huelskoetter, who credited the Department of Commerce with introducing his firm to exporting, was understandably pleased with his first Trade Center exhibition; Dicomed signed a representative and estimated sales to reach $500,000 in a year.

Germans, Modernizing Industry, Seek Process Control Instruments

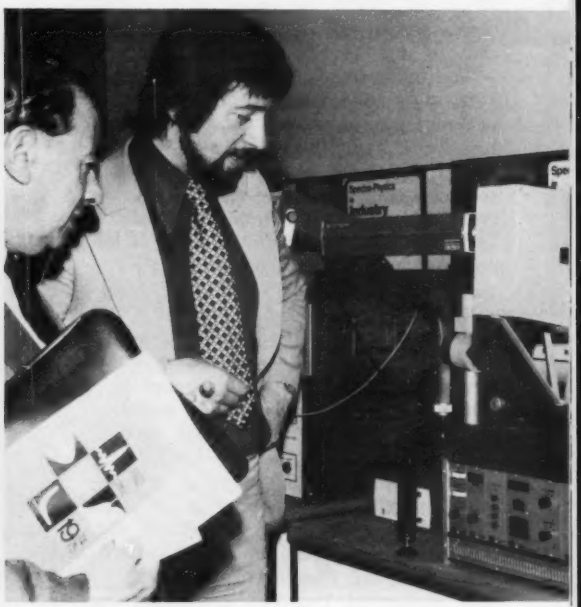
As the effects of rising oil prices are felt in the production budgets of many European industries, manfacturers are seeking ways to compensate for the high costs of energy; thus, plant modernization, with more efficient process controls, is one avenue for action.

U.S. manufacturers participating in a highly specialized industrial process control exhibition at the Frankfurt U.S. Trade Center recently saw this situation reflected in the interest shown by the German and other European visitors attending the show. Direct sales during the event reached $1.5 million, and the 32 exhibitors are forecasting $9.3 million worth of business in Europe during the coming year.

An air purification system, perforated tape reader for process control, linear and angular displacement transducers, infrared thermometer, laboratory stirrer for polymer chemistry research, and a system for non-contacting measurement of density were among the products shown.

The large-scale exploitation of nuclear energy as a power source should open extensive markets for appropriate process control instruments. As the character of the domestic end-user changes and as plants become increasingly automated, demand for sophisticated computer-controlled systems is anticipated.

PROCESS CONTROL INSTRUMENTS—*At U.S. exhibition in Frankfurt, R. P. Zupa (right), Pickering & Co., and P. Untersander (center), Pickering engineer in Europe, explain to M. E. Hoene of Siemens AG, Germany, the performance of their firm's linear and angular displacement transducers.*



AT U.S. TRADE CENTER, LONDON—*Elliot Richardson (center), as U.S. Ambassador in the U.K., gets details of products displayed last fall at electro-optical systems and lasers show. Richardson has since been confirmed as Secretary of Commerce. Others in photo, from left: W. King and J. Wasko of Holobeam Lasers, Trade Center Director Charles Shaw and Deputy Dir. William Warnes. Pictured at right are K. Kennard (left), editor of* Marine Engineers Review, *and R. Jackson of* Electro Optic *magazine, inspecting U.S. equipment.*

NORD-AIR '75—*At U.S. Trade Center, Stockholm, William R. Tymczyszyn (right) of Global Navigation, Inc., demonstrates a VLF navigation system for a commercial aviation group.*

Avionics Exhibition In Stockholm Lands U.S. Equipment Sales

Weather radar and instrument landing systems, automatic flight controls, radios, antennas, and airport logging recorders were among the products that attracted the most interest and sales at a recent avionics and aviation support equipment show in Stockholm.

The presence of several new-to-market U.S. companies displaying very current technology, in addition to the known and respected "name" companies, contributed to the success of the U.S. Trade Center's show —NORD-AIR '75. Substantially increased market penetration was indicated by the results reported: $15 million in immediate and 12-month projected sales by the 15 exhibitors.

Specific products which attracted top interest included microwave instrument landing systems, DME transponders, emergency locator transmitters, switching power supplies, solid state loads, encoding altimeters, Omega/VLF/inertial navigation systems, tools, and software for analysis/evaluation of avionics systems, ATC, and airports.

Some airborne avionics products, like navigation/communication radio, are well established and completely dominated by U.S. equipment, thus U.S. companies can only hope to gain sales at the expense of other U.S. companies; however, the new technology Omega and VLF navigation radio field is wide open so that market prospects for all are still very promising. In the airborne avionics products categories, complete dominance by U.S. products was verified; the only exception was direction finding equipment where German competition dominates.

The ground avionics equipment shown did well; DME, radar, and instrument landing systems for small airports are high potential products. In addition, a logging recorder attracted a great deal of interest.

As for aviation ground support equipment, high-potential products are ground deicers, mechanical washers, pushout tractors, systems checking equipment, runway/ramp melters, and mobile UHF communications systems for terminals.

U.S. exports of avionics and aviation support equipment to Sweden were $7 million in 1974, a total which has been increasing some 30 percent annually for the last three years. U.S. exports to Denmark, Finland and Norway in 1974 totaled $16.5 million for a Scandinavian total of $23.5 milion.

The NORD-AIR '75 exhibition was the U.S. Center's first in avionics and its first with a highly specialized focus. An exhibitor who had participated in the Paris Air Show, an established annual event, commented that he had developed as many serious business leads in Stockholm as he had in Paris. Although it had been expected that the number of buyers at NORD-AIR would be small, the exhibition was visited by the head and three principal deputies of the civil aviation authorities, by the head of military procurement and his deputies, and by most of the top officials of Scandinavian Airlines (SAS). About 30 percent of the visitors came from outside the Stockholm area.

ALSO AT STOCKHOLM CENTER—*An October "between-shows promotion" that preceded the avionics show (see above) was a display by Addressograph-Multigraph that netted the company $57,000 in direct sales and a 12-month projection of $455,000. Unit in center foreground is firm's phototypesetter; also seen, tandem duplicator and two-sided copy system.*

SYSTEMS '75 IN MUNICH—*At U.S. pavilion during EDP fair, F. Batchelor (right) of Data Printer explains to potential customer firm's high-speed printer.*

'Quantum Jump' In U.S. Prospects For EDP Sales Seen At Munich Fair

Munich's SYSTEMS '75, Europe's largest international computer applications fair, produced results for U.S. exhibitors that exceeded expectations—"by a quantum jump," as one of the participants put it.

A printout from the U.S. pavilion, where 42 exhibitors represented 60 EDP-related firms, would have come up with these totals: almost $3 million worth of business concluded on the spot; $65 million worth projected for the next 12 months; nine agreements signed, 32 under negotiation. It could have come up with these exhibitor comments:

"Pleasantly frustrating"—to be involved in a serious discussion with an interested customer and know that two or three others were waiting.

"Pretty expansive" to have brought five of the firm's best technically qualified sales people to the show—only to find two more were needed.

"Quality superior"—most visitors were prepared to talk on a technical level; they asked intelligent questions and knew what they wanted.

SYSTEMS, '75, third in a biennial series, specialized in computer hardware and software plus related accessories and components. The U.S. exhibitors' broad based successes were in great part due to the recent recognition by higher management of German business and government that economic conditions require prompt introduction of the latest EDP and related hard and soft ware services to retain commercial competitiveness abroad and to better operate the massive network of government programs and social services.

Twenty percent of the visitors came from outside Germany; 64 percent were end users from industry, public administration, the medical field, research, the insurance industry, construction, trade, banking, service (computer centers), traffic, universities and technical high schools. While most were interested in hardware, 34 percent were looking primarily for software products, 12 percent for accessories, and 11 percent for EDP services. Visitors' primary interest was focused on terminals, peripheral equipment, data entry systems, and minicomputers.

Despite the moderate appreciation of the U.S. dollar against the German mark —and against most other European currencies during the past six months—price competitiveness was found to a marked degree for most of the U.S. exhibited equipment. The two exceptions were EDP equipment and data communications and systems. For certain products, U.S. technology is considered superior to German; for others, about equal.

Products with the best potential from the standpoint of quality, U.S. Commercial Officers in Germany report, are: data modules, floppy disc systems, printers, interface technology, non-intelligent terminals, core-memory products, paper tape punches and readers, printer controllers. Products with the best potential from the standpoint of price competitiveness: printers, disc memories, fix head discs, uninterruptable power systems, electronic keyboards, wand readers, leasing.

Those which enjoy a technological lead over locally produced similar products and third country sources: cartridge disc systems, panel meters, intelligent terminals, interface technology, line printers, and interactive graphics. Those with moderate potential because of competitive pricing: tape drives, POS terminals, microprocessors.

Products with marginal potential: disc packs, disc drives, counters, EDP systems, testing equipment.

U.S. PRINTING EQUIPMENT DOWN UNDER—*During second successful exhibition of printing and graphic arts equipment this year at Sydney U.S. Trade Center, Charles Britton (right), Didde-Glaser Inc., Emporia, Kan., shows prospective customer stationery produced on firm's 2-color offset press—the largest machine exhibited. Press was sold off-the-floor. For a report on earlier event at the Sydney center, see* Commerce Today, *Sept. 29.*

Worldwide Business Outlook

Closer Look At Morocco Is Urged By Envoy There

Unlike many other Arab states, Morocco has so far not been blessed with Aladdin's magic lamp of oil. But it does possess 60 percent of the non-U.S., non-Soviet phosphate reserves of the world. This mineral, essential to both food production and many basic industrial processes, has risen in price almost parallel with oil, giving the Moroccan government the potential to carry out a very ambitious and well-conceived agricultural and industrial development program. Possibilities for U.S. construction firms, capital equipment exporters, and investors are highly attractive.

The Moroccan Government is in a process of actively seeking to diminish its historic reliance on a single major supplier. During a recent visit by Eximbank Chairman Wiliam J. Casey, minister after minister told him of Morocco's interest in attracting more U.S. investors and suppliers of major industrial equipment. There was the recent experience of seeing all bidders for two major international competitions rejected—one for a new, automated central post office in Casablanca, the other for important construction phases of the new Casablanca International Airport—because there were no American bidders. Morocco has learned that U.S. equipment is usually technically superior, even where the price is a bit higher. And, indeed, U.S. equipment is currently highly price-attractive as well, given the exchange rate changes of recent years.

The U.S. share of Moroccan foreign trade is substantial. In 1974, it accounted for 9.2 percent of Moroccan imports against 1.1 percent of Moroccan exports. According to U.S. Census Bureau statistics, U.S. exports totaled $162 million in 1974 and will approach $200 million in 1975, representing a wide range of manufactured goods as well as agricultural commodities.

U.S. can help on projects

The current Five Year Plan is undergoing mid-stream revision to increase emphasis on such sectors as irrigation projects, agriculture, construction of sugar refineries, port and harbor construction, development of oil shale and other energy sources, and increased minerals production—all areas in which the U.S. has considerable expertise. Emphasis is also being given to increasing transportation and tourism facilities. Major sales of U.S. aircraft, locomotives and rail and airport equipment have already been made and more are expected. U.S. banks were included in a consortium which recently underwrote a $200 million Euro-currency loan.

"What has puzzled me," U.S. Ambassador to Morocco Robert G. Neumann has observed, "is that after we have identified and reported to the Commerce Department specific attractive openings for U.S. businessmen, so few respond. And fewer still seem willing to go beyond passive notification to the Government of Morocco—usually written in English, despite our caveat that French is the language of the country." Other observations by Ambassador Neumann on the Moroccan market are contained in this special report prepared by him for Commerce America.

Promising areas for potential U.S. investors include integrated meat/dairy production, growing and processing specialty fruits and vegetables, light manufacture for export, tourism, and cinema production.

Government investments in substantial and sophisticated projects are made through international calls for bids. This procedure provides opportunities for U.S. firms wishing to supply Morocco with equipment to participate in major local construction and engineering projects, or to invest in joint ventures with local partners to take advantage of the incentives provided by the Moroccan Investment Code. Calls for bids are substantial and varied. They run from construction of sugar mills, hydro-electric plants, new ports, railways, and schools, to the supply of medical equipment, locomotives and railroad equipment, and the outfitting of sugar mills. Engineering works such as drilling, surveying and agricultural planning offer further areas of potential interest.

Projects now being implemented, or under serious consideration, which afford major supply possibilities, include the following:

- A million ton per year cement plant;
- A nationwide network of cold storage facilities with a total capacity of 100,000 metric tons;
- A new port at Jorf Lasfar (formerly Cap Blanc) south of El Jadida to serve initially for the exportation of phosphoric acid and phosphate rock and later for crude oil. Refineries and a petro-chemical complex are contemplated in joint ventures with Abu Dhabi. As of February 1975, the scope of the total project, including infrastructure, is estimated at $3 billion.
- A new port at Nador, on the Mediterranean, is intended to export iron ore, handle agriculture products from the Lower Moulouya irrigation perimeter, and service the contemplated steel plant. A Romanian organization has successfully negotiated for this project.
- The Nador steel plant, being implemented by a new publicly-owned corporation "SONASID" with a capital of $10.5 million. The British Atkins engineering firm has been engaged to carry out preliminary engineering studies, and to supervise construction and training of personnel.
- Railroad construction, extension and renewal under the current development plan (1973-77) is estimated at $100 million.
- Extension of the capacity of existing oil refineries to 6.5 million metric tons per year by 1977.

There are presently about 40 American companies, or subsidiaries, with operations in Morocco, and seven regional sales offices. Almost 100 other U.S. firms are represented by agents. The total value of U.S. investment in Morocco is estimated at about $60 million. Several important firms are currently testing the water in mining, electronics, energy production, and manufacturing.

Use of French is important

Morocco is an Arab country but in fact business affairs are conducted even more in French than in Arabic. But they certainly are not conducted in English. Therefore, those who cannot speak French will want to equip themselves with a good French or Arabic translator. By the same token prospectuses and specifications should be in French and in the metric system.

Moroccans, like many people in the East, like to get to know their counterparts before doing business—a rather sound proposition. And part of this process will probably be their fabulous hospitality. So don't arrive in the morning, expect to sign a contract in the afternoon and leave the next morning. Allow for time and patience.

Reports discussing Morocco's foreign trade regulations, marketing tips, and analysis of the Moroccan Investment Code and investment incentive system can be obtained from the U.S. Department of Commerce, Commerce Action Group for the Near East, Washington, D.C. 20230, or by writing directly to the Economic Counselor at the American Embassy, located at Avenue de Marrakech, Rabat, Morocco.

SELLING U.S. GOODS IN SPAIN—*G. Artelt of the Marflow Tool Div., Brown Tool Mfg. Co., talks with clients at the U.S. pavilion of* AUTO-SALON *75 in Bilbao.*

Post-Franco Spain Is Waiting For The Economy To Improve

Spain is in the midst of a recession, and economic performance is unlikely to show substantial improvement from the present growth level, estimated at no more than 1 percent, for at least the next six months.

The U.S. Embassy in Madrid reports that Spanish authorities are now more concerned with inflation than with unemployment and are almost equally worried about a current account payments deficit which, if smaller than 1974's record high, is still far too large to be financed easily for any long period of time.

Spanish policy at present is to wait for reactivation abroad to spur demand for Spanish exports, while trying to maintain at least a modicum of growth through monetary policy that is mildly restrictive and fiscal policy that is very moderately expansive. But unemployment (estimated unofficially at 4 to 5 percent) is already quite high for Spain and could eventually force the government to take expansionary measures if no improvement seems forthcoming by the second quarter of 1976. Some steps in this direction are already scheduled in housing construction. The 1976 Central Government budget calls for a 19.6 percent increase in expenditures; in real terms this amounts to an increase of no more than 3 percent.

In the 12 months ended in September the cost of living index, the principal measurement of inflation in Spain, rose 17 percent, considerably higher than hoped earlier in the year. The slowdown in the economy and the drop in prices of certain raw materials could push the index down toward the 16 percent mark for the year as a whole, and the annual rate in early 1976 will probably remain below that; but government-authorized wage settlements of up to 19 percent covering a broad range of contracts are expected, and actual contracts may go well above that. Together with higher oil prices, they could keep inflation from dropping too much below these uncomfortably high levels. Both for political and economic reasons such rates are worrisome, and responsible Spanish officials are aware of the situation and genuinely concerned.

Timing is critical factor

The problem for Spain is one of timing. Premature reflation, it is feared, will send prices still higher and ultimately bring about a worse recession than at present. But the failure of the economy to revive at least somewhat over the next 12 months could have an increasingly negative effect, plunging the country into a deeper and more unacceptable recession. One area where there is some guarded optimism is agriculture, where good feedgrain crops ensured that 1975 was a better year than 1974. But in industry, investment has dropped off considerably as business expectations have declined. As of August, the official index covering investment in capital goods and buildings of all kinds was still below the level reached in mid-1973. Most production indices are sharply down, stocks are high, and the general business outlook is not optimistic. There are, consequently, growing pressures for the government to reflate, but for the present at least, the policy, with minor exceptions, is to wait for the stimulus to come from abroad. Inflation and the balance of payments are still the overriding considerations.

Some improvement is expected in the balance of payments picture. But with a trade deficit of $7.5 billion through October (versus $7.0 billion through October 1974) there is certain to have been another large current account deficit in 1975, at present estimated at around $2.6 to $2.7 billion for the year as a whole (versus $3.1 billion in 1974). The recession is at last causing a slowing down of imports. Since June, the trend has been in this direction. At the same time summer tourist receipts were strong, and the decline in net foreign investment (down 41 percent for the first six months of 1975 versus 1974) has been more than offset by increased borrowing so that foreign exchange reserves at the end of September were actually the same as at year-end 1974. These can be expected to decline over the next six months unless the government resorts to extensive foreign borrowing, for example by drawing on the IMF oil facility.

Spain's high reserves and low level of total foreign debt still permit considerable room to maneuver, but the Spanish Government views the present situation conservatively and is trying to get both price levels and the external payments situation back in balance. The desire to do this implies a fairly stagnant growth situation for some time yet to come, well into 1976 at least.

Until the situation can stabilize some, there is bound to be concern, both domestic and foreign, which could have an at least temporary negative effect on the economy. Some investment and lending decisions are being postponed, and something of a wait-and-see attitude exists. At the same time the medium to long-term outlook on the part of bankers, businessmen, and others is generally positive. Interestingly, the Madrid stock market has risen sharply in the midst of all this. The next six months should be of great interest and importance politically, and, consequently, economically.

As noted above, the recession in Spain has begun to affect import levels as firms draw down inventories and postpone decisions on capital expenditures. Notwithstanding the reduction of imports generally, those from the United States increased during the first nine months of the year, both in value and volume terms. While imports of U.S.-manufactured goods were up slightly, the increase was mainly due to greater sales of agricultural commodities, particularly corn. Spain's trade deficit with the United States, which in 1974 amounted to $1.4 billion, was running ahead of 1974 figures and probably amounted at year's end to approximately $1.7 billion. The deficit doubtless would have been higher had the recession not limited Spain's imports to lower levels than predicted.

Spanish officials and the media have begun to express concern over the persistent trade deficit with the United States, particularly as they believe it will be difficult for Spain to expand exports to the

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United States sufficiently to close the trade gap to any significant degree. The trade account, of course, tells only part of the story, and if invisible flows are taken into consideration, the deficit is offset. Nevertheless, the trade balance is the most visible item in the payments account, and Spain's deficit trade situation has led to suggestions that efforts be made to reorient the country's imports away from the United States and toward those suppliers where the possibility of expanding offsetting exports appears greater. For a variety of reasons, this would be difficult to do, but the fact that it is suggested illustrates the seriousness with which Spaniards view this problem and their sensitivity toward any restrictions on their products entering the U.S. market.

Demand for U.S. goods is expected to remain relatively steady in the short-term. Health care equipment, computers and computer peripherals, metalworking, communications and process control equipment all have attractive sales prospects. The reaction to a recent catalog show on pollution control equipment indicates that there is a growing interest in this field and a strong potential market for almost all types of U.S. control and cleaning equipment and systems.

The increase by OPEC of crude petroleum prices has served to underscore the importance of Spain's nuclear power program as an alternative to dependence on increasingly expensive imported oil. There has been a notable surge recently in the interest of U.S. and other foreign suppliers in the Spanish nuclear power market.

Other promising areas for U.S. exports are laboratory instrumentation, and food processing and packaging equipment and metalworking and metal finishing equipment.

The U.S. Export-Import Bank has played an increasingly important role in financing U.S. exports to Spain. Authorized loans now exceed $1.6 billion, covering exports valued at $2.4 billion. Loan guarantees cover an additional $262 million in credits.

The U.S. Department of Commerce now has available for sale through its district offices a series of current market surveys for Spain on the following subjects: food processing and packaging machinery, electronic components and equipment, printing and graphic arts equipment, metalworking and finishing equipment, automotive maintenance and repair equipment, air and water purification and pollution control equipment, process control instrumentation, laboratory instruments, avionics and aviation support equipment, business equipment and systems, electric energy systems, communications equipment, building products and construction equipment, and computers and peripheral equipment.

Turkey Faces Prevailing Problems, But GNP Growth Is Holding Up Well

As 1976 begins, Turkey, in common with many developing and developed countries, suffers from sharp inflation, unemployment, soaring import costs, lowered export revenues, and a growing domestic budgetary deficit, according to the U.S. Embassy in Ankara.

In spite of new export promotion policies and better export performance during the third quarter, the trade deficit was a record-breaking $2.6 billion for the first nine months of 1975. Inflows of capital and of convertible lira deposits helped hold foreign exchange reserves relatively steady over recent months. Nevertheless, the short-term nature of much of this money creates other concerns for the future. Inflationary pressures appear to be abating, but the annual rate of inflation is still high. An excellent agricultural harvest has contributed handsomely to the provisional estimate that GNP increased by 7.4 percent in real terms in 1975.

Tighter credit policies, measures to cope with a growing budgetary deficit, short-falls in raw materials and capital imports, and inadequate preparation in some cases, however, have held back productive industrial investments and could ultimately lower the provisional estimate. In addition, a delicate political balance in Parliament and the country at large during the past two years, coupled with emphasis on foreign policy issues, has meant that the country's economic problems have received little attention.

Nevertheless, Turkey showed a real GNP growth of 7 percent in 1974 and appeared to do about as well in 1975. In this respect, therefore, its performance has been considerably better than that of other non-OPEC developing countries.

Imports for the first 9 months of 1975 reached $3.6 billion, a rise of 41 percent over the comparable period in 1974, while exports fell 13.6 percent to $993 million.

While the government is concerned about the growing trade gap, it appears that there are no easy short-term solutions to the problem. Turkish imports are heavily concentrated in investment goods and raw materials for Turkish industries. Therefore, any sizable cuts would further aggravate investment shortfalls and affect the thus far satisfactory GNP growth rate. A meaningful growth in export performance appears contingent on Western economic recovery, improved prices for Turkey's agricultural exports, and better utilization of existing export industries.

Worker remittances are also dependent on European economic recovery. Of the approximately one million Turkish workers employed in Europe in 1973, up to 250,000 have returned to Turkey. Remittances have remained near the 1974 level, probably because many returnees are bringing their savings with them. While remittances reached approximately $1.3

TURKISH DEVELOPMENT PROJECT—*World Bank assisted in construction of this irrigation canal on the Adana Plain, potentially one of Turkey's richest areas (World Bank photo).*

billion for 1975, they may be less significant in the future as a source of Turkish foreign exchange receipts.

Turkish Government policy and existing legislation welcomes foreign investment provided that it responds to clearly-delineated national criteria. Foreign investment must contribute positively to economic development, not displace established Turkish enterprises, contribute to exports, introduce new technology, and not entail a monopoly. Nevertheless, foreign direct investment in Turkey, which appeared to have gathered momentum in the 1950's and early '60's, has, for a variety of reasons, stagnated in recent years. Prospective foreign investors report that they have been discouraged, and have often lost interest, because of delays and other obstacles encountered in seeking approval for their investment proposals from the relevant Turkish Ministries and authorities.

With somewhat greater encouragement, in particular from Turkish authorities, private foreign investment attracted to Turkey under Law No. 6224 could provide a viable method of improving the basic balance of payments and investment outlook. Foreign investment could provide the technical know-how, special marketing experience and capital necessary to develop new export industries. Foreign capital and expertise could assist Turkey in adding relatively quickly $200-300 million annually in tourism receipts by building new facilities, and promoting and improving the utilization of presently existing hotel and resort capacity. Likewise Turkey's natural resources—in particular minerals and the country's large forest areas—are inadequately exploited at present. Private foreign investment could also play a role in developing these resources which could lead to an increase in export earnings relatively rapidly.

Expanding market for exports

Prospects for increased U.S. exports of goods and services to Turkey remained good. U.S. exports to Turkey during the first 8 months of 1975 rose 30 percent to $317 million as compared with $228 million during the same period in 1974. The U.S. market share of Turkish imports improved slightly to 9.9 percent during 1975.

Turkey offers a growing market for a wide range of intermediate and capital goods and engineering and consulting services in connection with projects for economic development. The current Third Five-Year Plan (1973-77) aims at an average growth of GNP of 7.9 percent and of industrial output of 12 percent annually. The Plan aims particularly at the rapid development of domestic mineral and fuel resources, intermediate goods and import substitution investment goods. Because of Turkey's great emphasis on expanding industrial production and maintaining a strong real growth rate, even with current balance of payments pressures there is little that can be reduced in imports of investment and intermediate goods and raw materials.

Considerable project credits are in the pipeline and new lines of project financing, particularly with IBRD and the European Investment Bank, are being negotiated. BOTAS, a wholly-owned subsidiary of the Turkish Petroleum Corp., recently borrowed $150 million on the Eurodollar market for use in financing the Iraq-Turkey pipeline and there are indications that the State Economic Enterprises are interested in further loans. Iran recently signed an economic protocol with Turkey providing $1.2 billion over 5 years for improvements in rail, road and harbor facilities on transit routes through Turkey to Iran plus a large meat-packing complex and pulp and paper project in Eastern Turkey.

There are excellent opportunities for the sale of U.S. goods and services in areas relating to thermal and hydroelectric (and possibly nuclear) power plants; petroleum and mineral exploration; ore processing plants; food processing and handling facilities; establishment of chemical, petro-chemical, fertilizer, pulp and paper plants, and modernization and expansion of airport, railroad and highway transportation facilities. Selling in Turkey, particularly to the State sector, is challenging and occasionally difficult, because of cumbersome procedures and sometimes inadequate project planning. Nevertheless, determination is often rewarded. Many projects in Turkey have recently been deferred or slowed down by inflation, inadequate finance and capital import difficulties. Therefore, judicious use of supplier credits and packaging financing through the U.S. Export-Import Bank and other American banks is becoming increasingly the key to obtaining a desired contract.

Businessmen seeking markets in Turkey must be prepared to meet strong competition, particularly from firms in the European Economic Community. The nine countries of the EEC supplied close to 50 percent of Turkey's imports during the first 8 months of 1975, with West Germany alone supplying 22 percent of Turkey's total imports. Aggressive marketing by U.S. firms, aided by good service follow-up, can, nevertheless, obtain considerable export sales for American goods and services.

Singapore, Late Victim Of Recession, Hopes For Rapid Economic Recovery

Singapore appears likely to be one of the delayed victims of the worldwide recession, according to the U.S. Embassy there.

Real growth for 1975 as a whole will probably be only marginally better than the flat performance during the first six months of the year. The manufacturing and foreign trade sectors have been seriously impacted by the general recession and the shrinkage in international trade. Only fair results in the construction sector, facilitated by appropriate fiscal and monetary policies, have saved the economy from negative growth. Fortunately, considerable progress has been made on the inflation front, and unemployment has not become a major problem.

With the first signs of economic revival in the United States and possibly in Japan, Singapore is hopeful that a return to satisfactory growth lies not too far in the future.

Considering the decline in world trade volume, the substantial decrease in Singapore's trade during the first half of 1975 came as no surprise. In current prices the value of Singapore imports (c.i.f.) fell by 6.7 percent to $3.9 billion. Singapore exports plummeted 17.6 percent, to $2.5 billion. The United States replaced Japan as Singapore's major trading partner, thanks primarily to a 19 percent increase—to $656 million—in U.S. exports. U.S. imports from Singapore, on the other hand, declined by 30 percent, to $323 million.

The deterioration in Singapore's trade account, traditionally in deficit, did not, however, preclude the achievement of a $135 million surplus in the balance of payments. This was due to earnings from invisibles, as well as an influx of private capital. On July 1, official foreign reserves stood at $3.0 billion, up from $2.7 billion at the end of 1974.

To stabilize both employment and economic activity, government fiscal and monetary policies were appropriately expansionary throughout the period, but particularly so after the beginning of the new fiscal year on April 1. Total public expenditures rose more rapidly than did revenues, thereby halving the overall surplus of the comparable 1974 period. This surplus was expected to decline further during the balance of 1975. The Monetary Authority of Singapore (MAS) in the first half of 1975 permitted the money supply to increase at a moderate 14 percent annual rate. Additional measures, such as the abolition of the cartel system of interest rate quotation, were introduced by the MAS in July to bring about a down-

FAR EAST BUYERS—*Robert McCrae, President of Coast Iron Machine Works, Inc., Tacoma, Wash., meets with representatives of the Indonesian shipbuilding industry at an exhibition on this theme held at the U.S. Regional Trade Center in Singapore last July.*

ward adjustment in money market rates for commercial borrowers.

In some respects 1975 was a watershed for Singapore. The evaporation of rapid real growth and the significant decline in industrial production coincided with the completion of Singapore's first decade as an independent country. This confluence of events brought home to both the government and to the population the realization that the substantial and steady growth of the past is unlikely to be repeated. This realization comes from an awareness that the impressive expansion of the first decade was due in large part to the very productive opportunities for expansion of the modest infrastructure and industrial base that existed in 1965 and the subsequent rapid and almost uninterrupted growth of world trade and prosperity.

As Singapore begins its second decade, its economy is relatively mature. Moreover, the world is just beginning to emerge from its most serious post-war recession; and the small, externally-oriented Singapore economy is unusually dependent on developments in its major trading partners — the United States, Japan, Malaysia, Indonesia and the EEC. As a result, GDP growth for all of 1975 may not exceed one percent; and the resumption of satisfactory growth is conditional on the strength and durability of the incipient economic recoveries in the United States, Japan and Western Europe.

Approaching the future in a sober and cautiously optimistic way, the Government of Singapore remains committed to raising the standard of living of the population. This is to be done by developing Singapore into the services and know-how center of the region. But, as in the past, foreign trade and investment are to be the motors of Singapore's economic growth. To assure achievement of these objectives, Sinagpore is an active proponent of the eventual establishment within the Association of Southeast Asian Nations (ASEAN) of a free trade area. Such a trade zone, when established, is expected to accelerate both intra- and extra-regional trade, thereby attracting incremental foreign investment to the region and promoting more rapid growth of the member countries—Indonesia, Malaysia, Philippines, Singapore and Thailand.

In line with the desire to harness foreign investment to accelerate economic growth, the Government of Singapore probably maintains one of the most attractive investment climates in the world. There are no significant limitations on foreign equity participation or on the employment of expatriate management and technical staffs. To diversify and upgrade Singapore's manufacturing sector, a special welcome in terms of financial inducements is available to those companies engaged in high technology and capital intensive lines of production. A sharp decline in new foreign investment in 1975 may have helped to make the government somewhat more flexible in applying criteria for offering incentives to potential foreign investors. For example, pioneer industry status can now be extended for an additional five years, up to a maximum of ten years.

A good educational system and a variety of training programs insure a fairly large pool of skilled personnel. Although the recession has almost certainly reduced the real income of many in the labor force, local unions at present support the government view that wage increases and bonuses must be tied to productivity gains so as not to undermine Singapore's competitiveness with other countries in the region.

The remarkable performance of U.S. exports to Singapore in the first half of 1975 is the best evidence that can be adduced in favor of the competitiveness and attractiveness of American products in the region. Singapore's entrepot trade (trade in which Singapore's role is largely that of a commercial intermediary between producing and consuming countries) has declined as a share of total trade (from 34.5 percent in 1973 to 27.6 percent in 1974), but these transactions have grown absolutely. Notwithstanding the recent appreciation of the dollar relative to that of other major currencies, U.S. products enjoy a good reputation and should continue to enjoy a large and growing market.

Most promising product categories are: metalworking and finishing machinery and equipment; energy and fluid transfer systems; building and construction supplies and equipment; pollution control instrumentation and equipment; packaging equipment; communications equipment and systems; laboratory instrumentation; process control instrumentation; and materials handling equipment.

American firms are encouraged to continue using the facilities of the U.S. Regional Trade Center in Singapore to promote their exports to the local market and to other countries in Southeast Asia, particularly Malaysia and Indonesia.

Nordic Investment Bank Wins Approval Of Ministers

Representatives of the five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, agreed on December 4 to establish a Nordic Investment Bank to be located in Helsinki. The bank, which is planned to be operational in early 1977, will be capitalized at 440 million SDR, (Special Drawing Rights). Capital participation of the countries will be based on the countries GNP. Sweden will provide 42.9 percent of the capital, Denmark 23.4 percent, Norway 17 percent, Finland 15.8 percent and Iceland 0.9 percent.

The bank will be chartered to make loans and give guarantees for projects in which two or more Nordic countries participate. Each of the governments of the Nordic countries must ratify the Council decision. The ratification process is expected to take until April, after which organization of the bank may begin officially.

Chile Begins New Year In Slump, But Sees Slow Economic Recovery

At the end of 1975 the Chilean economy remained subject to a severe economic recession brought on by greatly depressed copper prices and past economic excesses. Gross domestic product will be at least 10 percent lower in 1975 than in 1974. Hardest hit have been the construction industry and manufacturing. All sectors except agriculture show substantial declines, adds the U.S. Embassy in Santiago.

The immediate causes of the recession were a balance of payments crisis forcing sharp cuts in imports and an uncontrolled inflationary process destabilizing the entire economic system. In April the Chilean Government embarked on an austerity program to reduce central government expenditures, raise non-copper revenues, reduce domestic demand and thereby imports, and restrict the flow of credit to public and private institutions. The budgetary deficit has been cut sharply and the 1975 balance of payments deficit is being covered successfully. Tighter credit, less governmental demand, and a much reduced volume of imports have in turn had a tremendous impact on domestic economic activity.

Chile looks to 1976 with cautious optimism. Government economists believe that the economy has hit the bottom of the cyclical trough but, at the same time, that recovery will be fairly slow. Inflation is still astronomically high by any standards, the short-term outlook for copper is not very hopeful, and the adjustment process has a long way to go before Chile will have a healthy economic system.

Economic tribulations are not deterring the Chilean Government in its program for economic liberalization. The government has reduced the number of state-owned and controlled firms by half and expects to reach its target of only 19 public sector enterprises in coming months. Maximum ad valorem tariff rates were recently reduced from 120 to 90 percent; economic policymakers expect to complete the rationalization program by the end of 1976. Foreign investment projects valued at $250 million have received government approval.

The outlook for the economy is a prolonged period of high though decelerating inflation, much unemployment, and only gradual expansion of industrial and construction activity. Economic policymakers, however, are convinced that Chile's number one priority has to be a sound economic structure which, once achieved, will insure rapid long-term growth.

The Chilean Government is aware that the Chilean economy cannot now generate savings needed for housing, physical infrastructure and rehabilitation of plant and equipment, as well as new productive activities. Many of the latter, such as for copper mining and oil exploration, are so highly capital intensive as to make foreign investment in one form or another indispensable. Besides the essential capital contributions, Chile must look abroad for modern technology and managerial skills. The success of an open economic policy as Chilean policymakers realize, also depends on the development of marketing channels which foreign investors can often provide.

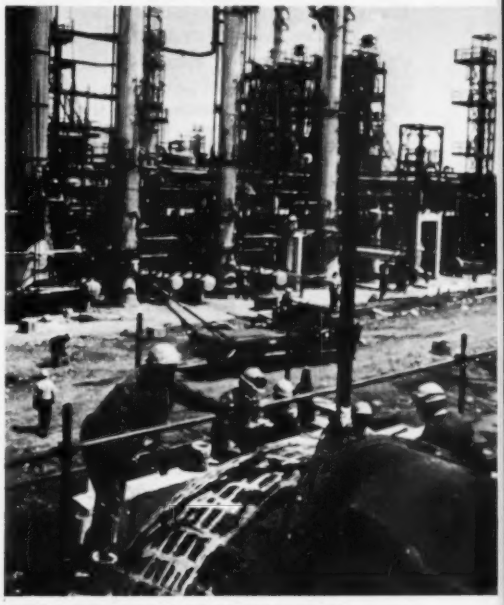
U.S. investors face certain obstacles in Chile. One is Chile's attitude and obligations to the Andean Pact Foreign Investment Code. It is still undecided what, if anything, the Pact is going to do about Decision 24, which is widely viewed, because of limitations on profit remittances, phase-out requirements, and prohibition on foreign investment in certain sectors, as a major obstacle to foreign investment in Andean Pact countries. Secondly, the Chilean Government has received much unfavorable publicity on its human rights' practices. Some investors may be reluctant to run the risk of incurring an unfavorable public reaction that a sizable investment in Chile might bring.

The Chilean investment environment is otherwise very attractive. The outlook for political and labor tranquility is good; there is an absence of environmental restrictions on production; Chile has, for a developing country, an unusually well-educated labor force and good educational facilities. Also of great importance to the foreign investor is an overall declining level of governmental intervention and participation in the economy. Against this should be offset a bureaucracy still reluctant to take decisions, and which has not fully accustomed itself to policy set at the top.

The U.S. share in the Chilean market continues to grow even though the value of U.S. shipments for 1975 will almost certainly be lower than in 1974 due to the tremendous fall in total Chilean imports. Retention of the large share U.S. exporters have forged in the Chilean market over the past two years will be difficult. Chile is quickly cutting back on agricultural imports, although wheat will probably continue to be imported in large quantities. The United States does enjoy a credit advantage over those European countries which have chosen to restrict their economic relations with Chile because of political considerations. On the other hand, Argentina and especially Brazil are becoming more competitive in the Chilean market, including credit terms.

A greater flow of foreign investment and the gradual recovery of domestic economic activity will afford U.S. exports excellent opportunities for increasing their sales to the Chilean market in the years ahead. The largest chunk of this investment will be channeled into the mining and petroleum sectors. U.S. producers, by virtue of superior technology, should do well in competing for sales of earth-moving equipment, heavy trucks, drilling and other specialized equipment. The Chilean program for rationalizing production will undoubtedly open up trade opportunities to alert exporters in areas now reserved to domestic producers.

Chile wants to sell more in order to buy more from the rest of the world. Chile also wants to end an overwhelming dependency on copper because of its great price instability. Export diversification means not only more sales abroad of products such as wine and fruits for which Chile enjoys certain natural advantages, but also industrial products. Favorable export financing facilities have been recently established by the Central Bank and possibilities for longer-term export financing are under study. PROCHILE, the official export promotion agency, is having considerable success in getting Chilean producers interested in export markets. Both because of its richness and because of the opportunities being opened by adoption of a General System of Preferences, the U.S. market is the object of much Chilean exporter interest. Profitable trade in both directions should expand rapidly in years ahead.



CHILEAN REFINERY—*This facility and an adjacent ethylene plant were built in Concepcion with Inter-American Development Bank financing (IADB photo).*

Yugoslav Contractors Seek U.S. Ties For Projects In LDC's

International construction work done by Yugoslav builders and engineering firms in the world's developing nations has been increasing rapidly. In 1947 they worked in 16 African, 10 Asian and four Latin American countries. They welcome ties with U.S. firms in continuing to expand such activity.

Yugoslav policy has been geared to intensify its economic relations with the developing countries. In the past this meant offering long-term credits in the purchase of capital goods. Now the experience gained in such dealings is used to carry out infrastructure projects according to economic cooperation agreements or to compete successfully with other bidders on various construction projects.

Yugoslavia's activities in oil producing countries are further spurred by the urgent need to offset the steep rise in crude oil outlays.

So far Yugoslav firms have constructed tourist complexes, commercial buildings, residential quarters, hospitals, roads, harbors, and airports. They are also engaged in construction of electric power plants and transmission systems, industry plants, water systems, and oil prospecting.

The Yugoslavs offer reliable construction and engineering services at relatively low cost in addition to area knowledge and reputation derived from previous activities and their leading position in the Third World.

According to one Yugoslav manager, some 75 percent of missed opportunities could have been won with U.S. partners. American firms are seen to be in a position to contribute the most advanced equipment and provide part of the financing.

U.S.-Yugoslav cooperation on third markets can take the form of joint bidding on World Bank and other contracts, Yugoslav firms' participation as subcontractors in American-managed projects, and vice-versa.

So far only a few cases of cooperation between U.S. and Yugoslav firms in third countries have resulted. In those the Yugoslav firms have done the construction work as subcontractors.

American firms interested in cooperation with Yugoslav firms in third countries should contact the U.S.-Yugoslav Economic Council, Inc., 51 East 42nd St., Suite 1504, New York, N.Y. 10018. The Council held a joint meeting with its counterpart in Yugoslavia at Dubrovnik last May at which the discussion focused on achieving closer cooperation in third markets.

International Business Reports

Digest of Western Africa Development Plans. Prepared by Ralph S. Edwards, Bureau of International Commerce. 17pp. 50¢.

Contains brief descriptions of the most recent economic development plans in effect in several countries of Western Africa. Although the character and scope of the plans vary from country to country, Edwards found, they generally share the common aim of identifying investment projects designed to help fulfill national objectives. The most shared objectives are economic growth, upgrading health and educational services, expansion of employment opportunities, development of infrastructure, and diversification of the industrial base. Most plans indicate specific amounts of capital expenditures for each project. Consequently, they constitute useful research tools for U.S. firms interested in marketing or investing in Africa.

Supersedes a publication on this subject issued in June 1973.

Write: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Also available at any Commerce District Office.

New International Realities. New periodical to be issued three times a year by National Planning Assn. Annual subscription $4.

"Designed to help U.S. policy-makers in the private sector and in government to perceive and interpret the probable significance of political and economic trends shaping the future development of the international system. In addition, it will be useful to opinion leaders in the communications media, to students and to people generally interested in understanding the changing international realities."

Each issue contains three sections: Current World Trends, Prognosis and New Research Findings.

Write: National Planning Assn., 1606 New Hampshire Ave. NW., Washington, D.C. 20009.

The Design of Rural Development: Lessons from Africa. By Uma Lele. Prepared by the International Bank for Reconstruction and Development. 246pp. $12 cloth, $3.95 paper.

Designed to contribute to an understanding of the problems and potential of African rural development. Drawing on detailed evidence of 17 diverse rural development programs in sub-Saharan Africa, offers guidelines for the design, implementation and evaluation of rural development policies and methods.

Write: World Bank, 1818 H St., NW., Washington, D.C. 20433.

List of Organic Chemicals Together with their Classification in the Common Customs Tariff of 1975. Published by the Commission of the European Community. Consists of five volumes, one each in German, French, Italian and Dutch, and a Glossary in all four languages. Each volume, 300 Belgian Francs; single volume with glossary, 600 BF; five-volume set, 1,400 BF.

Lists 7,000 organic chemical names and their classification in the external tariff (CXT). When ordering refer to publication #8458.

Additional information can be obtained from Sandro Forcheri, EC Commission, Administration of the Customs Union, Archimede Bldg., Room 2/12, 11 Rond Point Schumann, Brussels, Belgium 1040.

Write: Office des Publications Officielles des Communauties Europeenes, Boite Postale 3, Luxembourg.

Calendar For World Traders

Jan. 8 — Chicago — International Trade Club program on Andean Common Market countries, Pick-Congress Hotel.

Jan. 8—Cleveland—World Trade Assn. meeting, Mid-Day Club. Theme: The Middle East as a Trade Area.

Jan. 8—New York—Overseas Automotive Club luncheon meeting, Summit Hotel.

Jan. 8—Memphis—Mid-South Exporter's Roundtable dinner meeting, Monte's Restaurant.

Jan. 13—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

Jan. 14—Houston—World Trade Assn. seminar on U.S. Eximbank Programs.

Jan. 14—New York—FCIB Publishers Export Credit Group luncheon meeting, Summit Hotel.

Jan. 14-15—Greenville, S.C.—State Ports Authority seminar on International Cargo Transportation, Sheraton Palmetto Inn. Co-sponsors: U.S. Dept. of Commerce, Greenville Technical College, Greenville - Spartanburg International Trade Club.

Jan. 15—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Summit Hotel.

Jan. 15—S. Orange, N.J.—Seton Hall Univ. conference on Marketing to the Middle East. Commerce's John Haldane will speak.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about upcoming trade exhibits and trade missions, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

For more facts on these and other U.S. exhibitions write: Director, Office of International Marketing, Rm. 4015, U.S. Department of Commerce, Washington, D.C. 20230. For trade missions: Rm. 4219, U.S. Department of Commerce, Washington, D.C. 20230.

In-Store Promotion. Blokker, Amsterdam. March, May. Gebr. Blokker B.V. will hold a major promotion of U.S. consumer products in its 42 retail stores. U.S. products will be advertised in Blokker catalogs. Store contact is J. Blokker, Director, Gebr. Blokker B.V., Van der Madewag 13, Amsterdam. Mollie Cleveland, 202-967-4705.

Process Control Instrumentation and Equipment Exhibition. U.S. Trade Center, London. March 1-5. The United Kingdom, one of the world's most industrialized and technologically sophisticated nations, has a high level of demand for process control instrumentation and equipment. Sales of these products fluctuated between $165 and $176 million annually during the 1970-73 period. Products of American design continue to dominate the market and should supply a major portion of the $190 million in sales projected for 1978. J. R. Crown, 202-967-2888.

Industrial Maintenance and Plant Operations Exhibition. U.S. Trade Center, Milan. March 2-6. Commerce will launch an intensive promotion aimed at attracting major end-users not only in Italy but also those in surrounding countries. Exhibits will include noise analyzers, resuscitators, explosion protection systems, power sweepers, incinerators, dust collectors, trash compactors, fume and gas scrubbers, conveyors, work trucks, remote control devices, etc. Will run concurrently with and at the same location as the International Heating and Ventilation (H-VAC) Show. Sam Spaulding, 202-967-4508.

Printing and Graphic Arts Equipment Exhibitions. Paris Trade Center, March 8-11; Stockholm Trade Center, March 16-19. Strong and growing demand for PGA equipment in France and the Scandinavian countries has been identified by market research. PGA equipment sales in France are expected to expand at an average annual rate exceeding 11 percent in the 1972-1977 period, reaching $264 million in 1977. Scandinavian demand for U.S. PGA equipment resulted in U.S. exports to the area in January-June 1975 at a rate of 17.6 percent above the $28.2 million total for 1974. U.S. producers should be active in these markets, where dependence on imports for PGA equipment runs as high as 80 percent. Charles M. Whitley, 202-967-5381.

Commercial and Industrial Security Equipment Trade Mission to Spain, Switzerland and Italy. March 8-22. The $50 million import market for security goods shared by these countries is expected to expand significantly with the coming European economic recovery and an increased concern for security, both personal and proprietary. Recent market research in these countries indicates high demand for products of the following nature: microwave, infrared and ultrasonic detection devices; identification and automatic checking systems; anti-shoplifting devices; safes, vaults and alarm systems. Don McDonough, 202-967-4918.

Microwave Technology Exhibition. U.S. Trade Center, Frankfurt. March 9-12. The U.S. is Germany's principal foreign supplier of all types of microwave products and our share of the overall market exceeds 40 percent. This exhibition will embody the complete engineering and product areas of the microwave industry which are: antennas, materials, passive components, semiconductors, solid state components, systems and subsystems, tubes and amplifiers, test instruments and equipment. A technical conference will also be included. Leslie Pierson, 202-967-2177.

Ninth Cairo International Trade Fair. March 10-31. Economic activity in Egypt has greatly accelerated during the past two years and the investment climate continues to improve. Egypt has great potential as a regional economic center. A number of U.S. firms have expressed interest in participating in this event within an official U.S. pavilion, considering it an excellent opportunity to capitalize on commercial possibilities in Egypt and the Arab world. Invitations to participate are issued by the American Embassy, Cairo. General information is available from Bradley Tyrrell, 202-967-4304.

AM-TECH '76. Exhibition of U.S. Business Machines, Computers and Graphic Arts Equipment. Ellerslie Race Course, Auckland, New Zealand. March 15-19. AM-TECH '73 attracted 5,300 registered trade visitors and resulted in immediate sales of $1.9 million. Irwin Nathanson, 202-967-4957.

Computer '76. U.S. Trade Center, Tokyo. March 15-19. The theme of this exhibition is computers and related equipment: general purpose digital computers and peripheral equipment, and data transmission equipment. Call John Wolf, 202-967-2461.

Building and Construction Equipment and Supplies Catalog Exhibition. Honduras, Nicaragua, Panama. March 15-31. Catalogs and sales literature of U.S. companies will be shown to prospective buyers and agents in these three countries. Honduras, hit by Hurricane Fifi in September 1974, has earmarked $60 million for reconstruction and has identified $200 million for non-hurricane related projects. Nicaragua, in a construction boom following the 1972 earthquake, will spend $24 million on water systems, $20 million on sewage facilities, $40-50 million for seaport expansion and additional millions for construction of schools, hospitals, housing and commercial enterprises. Panama's ambitious capital development program includes projects planned for construction starts through 1977 valued at over $500 million. Major projects include development of energy plants, and facilities for tourism, health and education. Robert E. Peterson, 202-967-3973.

Media U.S.A. Catalog Exhibit. Liberia and Kenya. March 16-25. Will feature all types of published matter as well as audio-visual materials. Liberia is one of America's most important trading partners in Africa. The U.S. enjoys approximately two-thirds of the $600,000 "printed matter" market and could increase this share in 1976. Kenya has embarked on an ambitious educational expansion program which should raise the 1974 media import level of $6.7 million. The current U.S. share of the market is $458,000. Despite strong competition from British publishers this sizable market is well worth cultivating. Robert E. Peterson, 202-967-3973.

Retail Trade Techniques and Equipment Exhibition and Seminar. Moscow. March 22-26. The USSR Ministry of Foreign Trade has expressed strong interest in market-research and demand-forecasting techniques; computerization in inventory control and warehousing; point-of-sale and laser/optical reading systems; point-of-sale weight, value and purchase-price equipment and wrapping and packaging equipment; store layout, design, and fixtures; fast-food equipment and techniques. Richard C. Bell, 202-967-5163.

Materials Test and Quality Control Equipment Exhibition. U.S. Trade Center, Milan. March 23-26. Italy's extensive, sophisticated, manufacturing complex in the metal, mechanical, electro-mechanical and electronic product areas looks to the U.S. for advanced materials test and quality control equipment. Production, research and development engineers of Italian automotive, aircraft, railway, power generation, home appliance, machinery and electronic manufacturers and metal processors will attend. Non-destructive testing equipment; circuit testers; shock, vibration, stress measuring equipment; crack and seam testers; metallurgical test equipment; electron microscopes; and industrial x-ray equipment are among many items of special interest. Imports are estimated at $80 million annually. Philip Christenson, 202-967-4508.

Avionics and Ground Support Equipment. U.S. Trade Center, Mexico City. March 29-April 2. Mexico is substantially upgrading its air traffic control and airport equipment on a nationwide basis so as to have modern facilities with which to serve its growing tourist and commercial market. U.S. equipment is preferred by Mexicans, who are very familiar with American practice in this field. A technical conference will be included to enhance attendance. Ferenc Molnar, 202-967-2428.

Hospital and Medical Equipment Catalog Exhibit. Johannesburg and Cape Town. March 29-April 9. The import market in South Africa for pharmaceuticals, hospital and medical equipment totaled $86 million during the first 11 months of 1974, an increase of 23 percent over the 12-month level of $70.2 million in 1973. A number of hospital expansion projects are planned or are already under way. Nine new hospitals are

scheduled for completion in Transvaal Province by the end of 1980. Before 1983 the Transvaal Provincial Authority plans to construct additional facilities for 2,250 beds in four locations. Robert E. Peterson, 202-967-3973.

Pollution Control Equipment Exhibition. U.S. Trade Center, Paris. March 30-April 2. French investment in pollution control equipment is substantial and growing fast. Rapid industrial expansion with its impact upon the environment has caused the French to examine their quality of life. Forecasts indicate that they will spend about $1 billion during the 1976-78 period in this area. American manufacturers and suppliers of equipment for the control of air and water pollution, sewage treatment and solid waste disposal can reach a broad audience of customers from French industry and government. George Ruffner, 202-967-4941.

Health Care Technology Seminars to Philippines, Taiwan and Korea. March 31-April 14. New priorities in public health, upgrading quality and quantity of medical services, establishing new hospitals, and preference for U.S. technology point to greater sales opportunities for U.S. companies. The proven format of seminars, chaired by a recognized authority in the medical field, is designed to assist U.S. companies in enhancing their technological credentials and consequently their export sales to these Far Eastern markets. Seminars comprise eight presentations covering the most important aspects of health care as identified by market research. Don Sliwicki, 202-967-5285.

Telecommunications Equipment and Systems Exhibition. U.S. Trade Center, Sydney. April 5-9. In 1974-75 the estimated size of the Australian communications market was $305 million. In five years this market is expected to reach $468 million, averaging a growth rate of almost 9 percent. The U.S. accounts for 25 percent of the import market, which is growing at an annual rate of almost 13 percent. U.S. state-of-the-art equipment and technology is highly regarded but has not as yet been aggressively marketed in Australia. Irwin D. Nathanson, 202-967-4957.

Automotive Parts, Accessories and Service Equipment Exhibition. U.S. Trade Center, London. April 5-9. The British market for these is expected to expand at a significant rate during the next several years, as British motorists tend to keep their old cars longer and to maintain them better. Also, there is high public concern for highway safety and for a clean environment. Best market prospects are for engine and exhaust analyzers, brake testing equipment, portable jacks, mechanics' power tools, and electrical system parts. The U.K. market for diagnostic, maintenance and repair equipment exceeded $41 million in 1974, and is projected to reach $74 million in 1978, representing a 15 percent average annual rate of increase. Sam Dhir, 202-967-3275.

Building Materials and Construction Equipment Trade Fair. Saudi Arabia. April 12-17. Saudi Arabia is faced with the dilemma of how to modernize while still preserving traditional values. Its five-year development plan will inject about $100 billion into the economy and bring half a million foreign workers into the country. Specific goals of the plan are expanded health, education, and general welfare programs; construction of over 100,000 new homes per year; continued improvement in already established transportation, port, and communications infrastructure; accelerated development of industry, especially petroleum refining and petrochemicals, fertilizers and extraction and processing of mineral resources; and expansion of agriculture. Commerce is offering a uniquely integrated approach to these developments with a trade fair of 50 firms. Franc D. Manzolillo, 202-967-2515.

Technical Sales Seminar on Food Processing and Packaging Equipment. USSR, Romania and Czechoslovakia. April 12-23. Increasingly consumer-oriented economic policies and a need for plant modernization make Eastern Europe a fast growing market. This event combines a series of technical symposia with individual business appointments. Ralph S. Edwards, 202-967-2801.

Industrial Process Control Instrumentation Exhibit. U.S. Trade Center, Tokyo. April 19-23. It is estimated that this Japanese market by 1978 will reach $550 million, of which the U.S. share will be $57 million or approximately 10 percent of total consumption. Of total imports, $70 million for the year 1978, the U.S. share will represent 81 percent. Dan Chambers, 202-967-5751.

CONSTRUCTION USA '76—Construction & Building Machinery & Equipment Exhibition and Technical Symposium. Taipei. April 19-23. This event, mounted in response to requests by officials of the Republic of China Government, is aimed at exposing end-users to the latest in U.S. high-technology machinery/equipment/systems in these trades. Growth rate of the construction and building industry, 13.5 percent in 1974, is expected to reach 15 percent annually by 1977, a $50 million market. Thousands of new housing units are planned, and the high-rise ban has been lifted. Dave Horridge, 202-967-2798 or 5545.

Aviation & Airport Development Technical Sales Seminar/Trade Mission to Venezuela, Ecuador and Brazil. April 19-30. Sales of U.S. avionics equipment to these countries (including all communications and flight instruments for civilian aircraft) topped $21 million in 1974, with an 88 percent increase forecast for 1975. Two of the three countries are petroleum exporters and have been benefiting from high international oil prices; a large part of their revenues is being devoted to infrastructural development, including aviation as a high priority sector. Airports in all three countries are now operating under severe pressures because of heavier air traffic. Market potential is greatest for sophisticated aircraft with larger load factors, automatic and semi-automatic electronic air traffic control systems, and instruments for all-weather flying. Call Jonnell Jacobson, 202-967-5285.

Food Processing and Packaging Equipment. Stockholm Trade Center, April 26-29; Paris Trade Center, May 4-7. Expanding demand for convenience foods and strong growth in export markets for Nordic specialty food products are expected to boost the Scandinavian market for food processing and packaging equipment from an estimated $290 million last year to $440 million by 1978. Imports supply over three-fourths of the region's requirements with direct U.S. sales projected to more than double, from $23 million to $54 million or a 15 percent share. Spurred by growing patronage of supermarkets, France's food processing industry is expected to increase outlays for relevant equipment from $434 million to nearly $600 million in the 1974-78 period. Imports are foreseen to increase even faster with more than a doubling in U.S. sales to about $20 million. The high regard for U.S. equipment, relatively greater price increases for European machinery and growing requirements for long-run, high-capacity equipment offer a bright sales outlook in both markets for U.S. manufacturers who may participate in one or both of these "tandem" exhibitions. William Beiring, 202-967-3276.

In-Store Promotion. Nouvelles Galeries, Paris. April 26-May 29. American Bicentennial promotion of a variety of U.S. consumer products. Special exhibits will be featured in many of the 60 participating stores throughout France. The U.S. buying office is SONAC-Nouvelles Galeries, Attn. Bernard Chene, 11 W. 42nd St., New York, N.Y. 10036. Mollie Cleveland, 202-967-4705.

Advanced Welding Equipment JEEP. U.S. Trade Center, London. April 27-29. Good sales prospects exist for this equipment in the U.K. market, particularly in the expanding offshore petroleum, nuclear power and aerospace sectors. Among products of special interest to British buyers are plasma arc, electron beam, laser and ultrasonic welders. U.S. exports to the U.K. are increasing at a rapid rate now that American welding equipment, long known for its technological superiority, is price competitive. William G. Jordan, 202-967-4541.

Food Processing and Packaging Equipment Catalog Exhibit. Sudan and Kenya. April 27-May 5. The Sudan has 200 million acres of arable land, which has attracted financial interest from oil-rich Arab countries as a major source of food by 1985. As a result the Sudanese will be importing food processing and packaging machinery well above the $6.6 million 1973 level. Kenya's needs for expansion and improvement of food processing plants are estimated at $33.6 million over the next few years. Robert E. Peterson, 202-967-3973.

Materials Handling Equipment and Systems Trade Mission to Morocco, Ivory Coast and Zambia. April-May. Some $50 million worth of materials handling equipment and related systems is expected to be imported by these three African nations over the next few years. With obstacles to non-EEC imports being reduced and growing activity in freight, mining, timber, agricultural and manufacturing sectors in all three countries, new demands for materials handling equipment will be necessary elements for continued economic development. Bill Bushwaller, 202-967-4511.

Printing and Graphic Arts Trade Mission to Australia and New Zealand. April-May. Recently conducted market research in Australia indicates a favorable market there for American manufactured printing presses, phototypesetting and composition machines and systems, platemaking equipment, scanners, color separation systems and densitometers. Opportunities in the New Zealand market are expected to be similar to those in Australia. Edward Oliver, 202-967-3746.

Machine Tools and Other Metalworking Equipment Catalog Exhibit. Colombia, Ecuador and Peru. April 29-May 7. These Andean Common Market (ANCOM) countries are planning regional development of various industrial sectors by assigning member countries the responsibility of producing about 200 major industrial items under the metalworking portion of the Sector Program of Industrial Development. Approximately 85 percent of the 72 "assignable units" will be manufactured in Colombia, Ecuador and Peru. Automatic import duty reduction within ANCOM will accompany production start up within the next several years or by 1980. While the import market size is doubling every four years, future prospects cannot be calculated. The outlook appears brightest, however, for those companies that establish their commercial ties now. Robert E. Peterson, 202-967-3973.

In-Store Promotion. David Jones Ltd., Sydney. May. David Jones Ltd., the largest department store chain in Australia, will stage a major promotion of U.S. consumer products. Eighteen of its stores throughout the country will feature a wide variety of U.S. goods, plus special exhibits and attractions.

U.S. buying representatives for David Jones are: R. W. Cameron & Co., 420 Lexington Ave., New York, N.Y. 10017; and Frederick Atkins Inc., 117 West 9th St., Los Angeles, Calif. 90015. Mollie Cleveland, 202-967-4705.

In-Store Promotion. Kendal Milne (House of Fraser), Manchester. May. Kendal Milne, a leading department store in the English Midlands and regional headquarters for the House of Fraser, largest retail group in the U.K., will stage a U.S. Bicentennial promotion in May. Store contact is Miss Ann Leuty, Kendal Milne, Deansgate, Manchester M60 3AU, U.K. U.S. buying office is Associated Merchandising Corp., Attn. Henry E. Miller, 1440 Broadway, New York, N.Y. 10018. Mollie Cleveland, 202-967-4705.

Electronic Production and Test Equipment. U.S. Trade Center, Frankfurt. May 4-7. The German market for electronic production and test equipment is expected to reach $343 million by 1977. Excellent opportunities exist for American manufacturers since U.S. products are considered technically superior. Also, the German market is too small to warrant local manufacture of highly specialized computer-controlled production and test equipment. As a result German manufacturers are continually on the lookout for new and more sophisticated equipment. Best market prospects are communications equipment, cleaning equipment (ultrasonic and plasma), and entertainment products. Don C. Schmadel, 202-967-2177.

Process Control Instrumentation Catalog Exhibit. Sao Paulo and Belo Horizonte, Brazil. May 4-12. Brazil's major processing industries are experiencing rapid and robust growth, which in turn, should insure a high rate of expansion in the control and measurement instrument market for the next several years. Purchases are expected to reach $50 million in 1978, representing a 14 percent annual rise over the 1973 level of $25 million. The market for process control instrumentation in Brazil is found concentrated primarily in sectors of heavy industry, dedicated to basic processing of iron, steel, petroleum, chemicals, petrochemicals, pulp and paper, and textile products. Nearly 96 percent of these devices are imported. Robert E. Peterson, 202-967-3973.

Industrial Education and Vocational Training Aids Exhibition. U.S. Trade Center, Mexico City. May 10-14. The Mexican Government and around 8,000 enterprises throughout the country are looking for ways to upgrade training and technical skills of the work force. Rising wage scales and competitive world market conditions are causing employers to turn to modern teaching methods of improving worker efficiency and productivity, and U.S. procedures are highly regarded. Walter Bastian, 202-967-3636.

Business Equipment and Systems Catalog Exhibit. Hong Kong and Philippines. May 10-21. In both of these markets the number of commercial establishments is increasing. Rising costs are stimulating interest in modern, efficient office practices, equipment, and systems. U.S. equipment enjoys an excellent reputation and strong market position. To keep ahead of aggressive competition from other countries, American firms need to increase awareness of their availability in these markets. Robert E. Peterson, 202-967-3973.

Computers, Related Equipment and Systems EDP 76, U.S. Trade Center, Milan. May 11-15. U.S. exports of computers and related equipment to Italy are expected to increase by as much as 20 percent annually in real terms through 1977. The total market for computer equipment in Italy reached about $450 million in 1974, with imports accounting for about $250 million. U.S. exports and products of overseas subsidiaries of U.S. companies hold a dominant position in the Italian computer market. Don Mathes, 202-967-3957 or 2434.

American Furniture Show. U.S. Trade Center, Tehran. May 16-20. There is an excellent market opportunity for manufacturers of hardwood, residential furniture in Iran. High-quality, elaborate office furniture and institution furniture will also find good opportunities. Ministry of Economy estimates show a rapid growth for furniture imports: residential furniture imports will grow from $7.9 million in 1975 to $27.3 million in 1977 and $49.1 million in 1980 while total imports grow from $16.5 million in 1975 to $39.5 million in 1977 and $65.9 million in 1980. Manufacturers of woodworking machinery that increases efficiency and upgrades quality in furniture manufacturing will also find a good market. Jack P. Orlando, 202-967-2952.

Leisure Time and Do-It-Yourself Equipment Exhibition. U.S. Trade Center, London. May 17-21. This event, designated as America's Bicentennial Exhibition, will feature a unique promotional campaign. Increased leisure time and higher disposable income have created a growing demand for U.S. boats, sporting goods, garden equipment, power tools, musical instruments and other leisure time and do-it-yourself products. The market, valued at $683 million in 1974, is expected to expand at an annual rate of 10 percent. Imports from U.S. suppliers in 1974 totaled $70 million and represented approximately 25 percent of the British import market. Maurice Peter, 202-967-4256.

Health Care Instruments and Equipment. U.S. Trade Center for Scandinavia, Stockholm. May 17-21. Strong demand on outside sources for equipment with a high degree of technical sophistication continues to characterize the health care markets in the four Scandinavian countries. U.S. exports to Scandinavia are increasing substantially, with shipments in 1975 expected to reach a level 20 percent greater in value than the $17.2 million in 1974. The United States is a major supplier of equipment for all the Nordic countries. Despite keen competition from other European sources of supply, U.S. market shares continue to gain. In Sweden, the principal market in Scandinavia, the United States provides over 30 percent of demand for several types of advanced equipment. Robert Blake, 202-967-3088.

Toys, Games, and Hobbycraft Exhibit. U.S. Trade Center, Tokyo. May 17-21. The United States is presently Japan's largest single foreign supplier of toys, games, and hobbycrafts, with 40.6 percent of a total import market valued in 1974 at some $70 million. By 1977 total imports are projected to increase by nearly 30 percent over current levels. Larger disposable income and increased leisure time have created demand for imaginative, high quality, and sophisticated products of the sort produced by many U.S. manufacturers. The market for hobbies and crafts, especially, enjoys good sales potential, as Japanese manufacturers have virtually ignored it. John F. Whiteley, 202-967-2426.

Agricultural Machinery and Equipment U.S. Solo Exhibition. Caracas. May 17-22. The U.S. has a 60 percent share of the Venezuelan market for agricultural equipment and machinery, estimated at $63 million in 1974 and expected to grow 25 percent in 1975. This event is designed to take advantage of Venezuela's quest for self-sufficiency in food, especially grains and meat products, as the government programs surplus oil revenues for rural roads, irrigation systems and commodity storage facilities. A full range of on-farm equipment such as agricultural machinery, implements, grain cleaning, drying, storing, crop spraying, land irrigation, draining and poultry and dairy farm equipment is desired. Stephen F. Hall, 202-967-4832.

Petrochemical Equipment & Processes. Budapest International Spring Fair. May 19-27. The petrochemical industry has consistently enjoyed the highest growth rate of all industrial sectors in Hungary. A large percentage of investments in this industry have been spent on imports from the West. Jim Robb, 202-967-4810.

Health Care and Biomedical Technical Sales Seminar. Belgium and Spain. May 23-June 4. Seminar sessions will be conducted in Brussels, Madrid and Barcelona, with an optional visit scheduled to the University Hospital in Ghent. The seminar will cover a broad range of items in the health care and biomedical equipment fields. Emphasis will be on advanced equipment and complete systems utilized in well functioning hospitals, clinics and research laboratories. Product categories to be included are: cardiological; respiratory-pulmonary; pediatric; nephritic; operating room equipment; general hospital, clinical and research laboratory equipment. The economic conditions and long term trend toward increased and modernized health care delivery systems, both public and private, are very favorable for the seminar. Donald N. Sliwicki, 202-967-5285.

Laboratory Instruments Exhibition. U.S. Trade Center, Taipei. May 24-28. There is a rapidly growing market in Taiwan for laboratory and scientific instruments required to conduct research and development, with the emphasis on industrial and applied research. Total R&D expenditures, estimated at $35 million in 1974, are expected to reach $56 million by 1979. The prime market is for instruments and apparatus related to: petrochemicals and plastics, electronics, steel and shipbuilding, nuclear power, agriculture, fishing, oceanography and military applications. Carl Hahn, 202-967-5545.

Textile Machinery & Fiber Technology, INGLEGMASH-76. Moscow. May 25-June 8. Modernization of the Soviet textile industry is resulting in large imports of specialized textile machinery and fibers' technology. In the current 5-year period, production of knitted goods is planned to grow by 50 percent and some chemical fibers by 80 percent. Continued growth in these areas under the next 5-year plan offers increased opportunities. Dick Bell, 202-967-5163.

Clean Air and Water Exhibition. U.S. Trade Center, Sydney. May 31-June 4. The Australian pollution control market, currently valued at $85 million, is expected to grow at a rate of 9 percent. The U.S. accounts for 40 percent of the import market, which is expected to grow at a rate of 7 percent. Irwin D. Nathanson, 202-967-4957.

Nuclear Instruments, Accessories, and Medical Equipment Exhibit. U.S. Trade Center, Tokyo. June 7-11. The market for nuclear instruments and accessories has grown steadily in Japan during the past decade. In 1974, the Japanese market reached $484.6 million of which $96.7 million was imported with the United States as the major supplier. By 1979 the market should reach almost $951 million, $175.5 million of which will be imported. In addition, the Japanese market for biomedical equipment of which nuclear medical instruments are a part has been increasing at an average annual rate of 21 percent and should reach over $975 million by 1977. Mara Yachnin, 202-967-5751.

Industrial and Commercial Security Equipment Exhibition. U.S. Trade Center, Paris. June 8-11. U.S. manufacturers and suppliers

of security equipment for fire prevention and extinction, burglary and pilferage detection and prevention, access controls and communications equipment have splendid opportunities to sell in France. Rising theft and crime, special fire protection legislation, generous discounts on insurance premiums for adequately protected premises are compelling French firms to consider and to buy protective security systems and devices. The U.S. Trade Center has a proven track record in the promotion of American-made security equipment. Firms taking part in this show will benefit from an energetic market promotion to reach key decision makers and attract buyers, agents and distributors from industry and government. Lars Lofas, 202-967-4941.

U.S. Food Processing and Packaging Equipment Catalog Exhibit. Brazil and Argentina. June 9-23. Brazilian imports of food processing machinery totaled $17 million in 1974, and are expected to reach $26 million in 1978. Predictions are that the U.S. share of this market will grow from $3.4 million in 1974 to $5.2 million in 1978. Brazilian imports of food packaging machinery made in the United States amounted to $5.4 million in 1974 and are expected to exceed $11 million in 1978. It is anticipated that Argentine demand for imported food processing equipment will remain steady at about $25 million over the next three years and will consist of highly specialized lines and parts of components. U.S. suppliers should consider licensing agreements with local manufacturers whereby the U.S. company provides technology and critical components, since the market will be closed to foreign suppliers of finished products where domestic manufacturing capability exists. Robert E. Peterson, 202-967-3973.

MESUCORA (Instrument-Automation) Trade Fair. Paris. June 10-17. Long-range plans for industrialization coupled with current heavy demands for process control instrumentation, automation systems, test and measuring equipment, industrial process and data handling computers, and nuclear instrumentation in France and the rest of Europe, offers bright prospects to U.S. manufacturers. MESUCORA, held only once every three years, has proven highly successful for participating firms. At the last show in 1973 the 1,339 exhibiting companies reached over 48,000 trade visitors. John Bodson, 202-967-5381.

Communications Equipment. U.S. Trade Center, Mexico City. June 14-18. Mexico's communications equipment needs present an excellent market for U.S. manufacturers, especially in the fields of fixed and mobile two-way radio, CCTV, repair, maintenance and calibration instrumentation. Prospects are also excellent for suppliers of broadcast equipment, both radio and television, as well as professional motion picture equipment. A technical conference will afford the opportunity to discuss latest industry developments with Mexican decision-makers. Fred Tower, 202-967-2313.

Building and Construction Machinery Equipment Catalog Exhibit. Ecuador and Peru, June 14-28. Both nations are undertaking a wide variety of economic development projects which call for substantial investments and require large amounts of construction equipment and supplies. These projects involve irrigation, oil pipeline construction, highway construction and housing and office building construction. With certain minor exceptions most of this equipment must be imported. Spurred by petroleum exports, Ecuador's imports have risen to nearly $1 billion while imports into Peru have gone to nearly $2 billion because of rapid governmental growth in a wide variety of economic sectors. Robert E. Peterson, 202-967-3973.

Plastic Processing Machinery and Plastic Materials (PLAST 76). Milan. June 20-26. American manufacturers of plastics processing machinery and equipment and plastic materials can significantly increase their share of what promises to be a more than $40 million import market in Italy in 1976. U.S. technology in this field is highly regarded, and buyers are interested in the latest available types of cost/labor saving equipment. PLAST 76 is one of the world's largest international exhibitions of plastics with all of the same appeal of Kunststoffe and will be the major international promotion in this field in 1976. It provides U.S. manufacturers one of the best bridges available to reach both the established markets of Europe and the rapidly developing markets of the Middle East and North Africa. Over 180,000 visitors from approximately 50 countries are expected to visit the exhibition. In PLAST 72, participants in the U.S. exhibition sold $706,330 off-the-floor and $12,165,500 projected during the 12-month period following the exhibition. Jerry Morse, 202-967-3957.

USAQUIP '76. Exhibition of Materials Handling Equipment, Building Supplies and Equipment and Packaging Machinery. Kuala Lumpur, Malaysia. June 21-25. With a 2 percent growth in GNP in this depressed year, Malaysia is set to expand again as the world comes out of its slump. With $1.3-1.5 billion in gold, foreign exchange and net external reserves, plus a sound currency and 7 percent inflation rate in 1975, Malaysia offers the best in business opportunities in Southeast Asia. Materials handling equipment worth $23 million was imported in 1973, of which 8.4 percent came from the U.S. Growth in this market is expected to be 6-8 percent annually in the next few years. Some $19.5 million in building supplies and tools was imported in 1973, with 8.5 percent from the U.S. Packaging machinery imports in 1973 were $3 million, 14 percent from the U.S., and are expected to grow 10 percent per year. Roy Mitchell, 202-967-2051.

Automotive Test, Service and Repair Equipment. U.S. Trade Center, Sydney. June 21-25. The Australian market for automotive test, service and repair equipment is estimated at $145 million. Imports in 1973-4 were valued at $55 million with the U.S. accounting for 31 percent of this import market sector. Demand for this equipment will increase as service and repair organizations invest in new equipment. Due to the economies of short production runs and high manufacturing costs, domestic products are overpriced and the import sector is expected to increase. Irwin D. Nathanson, 202-967-4957.

Machine Tools, Metalworking and Shipbuilding Exhibition. Bilbao, Spain. June 21-26. Spain is expecting to achieve a 3 percent rise in GNP in 1976, partly due to its expanding metalworking-finishing industries, where the current import market is estimated at some $90 million. Included are the more advanced classes of electrical-discharge and electro-chemical machines, numerical and computer-controlled machines, and all classes of multiple operation and automatic and semi-automatic machines. Local manufacturers are now looking for large automated equipment which is superior to European equipment; flexibility and productive capacity are more important than price. Roger Turner, 202-967-3957.

Metalworking & Finishing Equipment Exhibition & Seminar. U.S. Regional Trade Center, Singapore. June 22-25. This market in Singapore has been expanding rapidly in response to increased demand from the shipbuilding industry, offshore oil firms and other industrial enterprises. In 1974, market consumption was estimated at some $82.4 million. By 1978 this figure is expected to reach $161.5 million. Space limited. Call J. Lee Barnes, 202-967-3893.

Noise and Vibration Control and Analysis Exhibition. U.S. Trade Center, Frankfurt. June 22-25. The German market for noise control equipment currently amounts to about $10 million a year. This market sector will enjoy an annual growth rate of at least 20 percent during the next 3 years. However, vibration equipment in Germany is considered to still be in its infancy. U.S. manufacturers with new technology or equipment will find exceptionally good sales opportunities. Loretta Allison, 202-967-3748.

Electronics Industry Production and Test Equipment Exhibition. U.S. Trade Center, Taipei. June 28-July 2. The highly developed and once again expanding electronics industry in Taiwan seeks the most up-to-date electronics production and test equipment. This exhibition will feature a broad range of production, test, assembly and quality control instrumentation and equipment. Most of the 900 plus electronics firms in Taiwan are oriented toward the U.S. market and exhibitors at this event will find large numbers of buyers already attuned to American production techniques. In 1974 Taiwan exported US$903 million worth of electronic products. Space is limited. Dave Horridge, 202-967-2798.

General Industrial Equipment Exhibition, U.S. Pavilion, XI Bogota International Fair. Bogota. July 15-25. The widely diversified Colombian market offers a variety of sales opportunities to U.S. exporters of products ranging from tractors to mini-calculators. Products exhibiting the highest sales potential include food processing and packaging equipment, agricultural machinery and equipment, business equipment and systems, materials handling equipment, printing and graphic arts equipment, textile machinery and pollution control equipment. For space reservation contact Stephen Gibson, U.S. Commercial Attache, APO New York 09895.

Metallurgical Equipment and Instrumentation Exhibition, U.S. Trade Center, Mexico City. Aug. 23-27. As rapid growth and expansion of the Mexican iron and steel industry is Mexico's number one developmental goal, vast investments in metallurgical equipment and instrumentation continue unabated. U.S. exports to Mexico in this field, over $15 million in 1974, have been growing at a 50 percent average yearly rate over the last several years, and this rate is forecast to continue over the last half of the 1970's. A highly detailed list of metallurgical equipment and machinery, process control instrumentation, and analytical and laboratory instrumentation has been formulated through extensive market research in preparation for this exhibition. For a market research summary as well as information on the exhibition, contact Anita F. Brownstein, 202-967-4464.

Interbymash Municipal Service and Domestic Equipment Trade Fair. Moscow. Sept. 1-15. Rapid urbanization and industrialization has created an enormous demand for municipal and communal services. Preparations for the 1980 Olympics assure further growth in demand. Will feature: water supply, sewage systems, electric power systems, gas supply and gas appliances, sanitary equipment, laundry and dry cleaning machinery, hotel equipment, barber shop and beauty parlor facilities, public transport and city road maintenance, and equipment for repair of electric appliances. Ralph S. Edwards, 202-967-2801.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Overseas Products and Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2895—THAILAND—Seeks U.S. joint venture partner to establish **carbon black** processing plant with capacity of 12,000 metric tons a year. Firm will offer equity and management participation in exchange for capital and technical assistance. Thawatchai Phaolaungthong, Assistant Managing Director, Chao Thai Phanich Co., Ltd., 925/9-10 Rama 1 Road, Bangkok. WTDR. P-75875. OPIC.

2899—GERMANY—Seeks licenses to **produce fire repellent agents and nonflammable protective chemicals for lumber and steel.** Firm also interested in granting licenses to U.S. company and in exchanging know-how and technology. Founded in 1891, firm produces industrial chemicals, non-flammable protective agents, paints and building supplies. It has 200 employees and annual sales of $7 million. Hans Medick, Dipl. Kaufmann, Manager, R. Avenarious & Co. Chemische Fabriken, 6535 Gau-Alegeshimj, Bhanhofstrasse 22-24. Telephone: 06725-2044/2048. P-75889.

3079—UNITED KINGDOM—Seeks licensing or joint venture arrangement to manufacture **molded components of both thermo and thermo setting plastics,** especially items for automotive, electrical appliance and toy industries. Firm is part of group having 250 employees and annual sales of $4.12 million. Colin Nesbitt, Director, Hyde Designs Ltd., Sandy Works, Park Road, Dukinfield, Cheshire, England. P-75879.

3221 — NIGERIA — Seeks joint venture arrangement for establishment of **glass bottle factory.** Factory is to be sited at Igbokoda, about 12 miles from Okitipupa. Igbokoda is surrounded by large deposits of fine white sand, alleged to be suitable for glass manufacture. Nigerian concern has allocated $1.6 million to the project. Foreign partner is expected to take an equity share of as much as 60 percent and manage plant. Desired capacity is 48,000 bottles annually. M. S. Adigun, Permanent Secretary, Ministry of Industries, Agodi, Ibadan. P-75892.

3272—GERMANY—Manufacturer of **prefabricated concrete plates and other prefabricated reinforced concrete construction components,** seeks licenses for production of similar products. Interested in obtaining products new to German market which would complement its current production and sales program. Employs 200. Stelcon A.G., 43 Essen, Alfredstrasse 98, Stelcon-Haus. P-75897.

3312, 3321—FRANCE — Firm, specializing in ship construction, off-shore drilling rigs, pressure vessels and similar equipment, seeks licenses for production of comparable equipment, including **pressure pipes and tubes.** Employs 260. Jean-Claude Thiriet, President, Toleries De Saint-Nazaire & Cie, 14 Rue Henri Gautier, 44602, Saint-Nazaire. WTDR. P-75900.

3400, 3825—UNITED KINGDOM — Firm with spare engineering manufacturing capacity seeks to contact interested U.S. companies looking for U.K. manufacturing base. Presently operates as manufacturer of **light precision sheet metal work, precision machining, and medium sheet metal and fabrication.** Also engaged in **instrument/electrical/electronic assembly work.** Established in 1965, employs 50. M. Wilson, Director, Cosmos Engineering Ltd., Blackhorse Road, Letchworth, Hertfordshire, England. P-75902.

3443—GERMANY—Seeks licenses to manufacture **pivot mountings, or bogies for railroad, street and subway cars; sliding doors for small buses, trucks, street, railroad and subway cars; and turrets for weapon systems, rocket, smoke screen launches.** Also interested in cross licensing arrangements. German firm is a leading producer and exporter of carriages and various supplies used in transportation systems. Also active in defense sector, mainly tanks. Maintains own network of distributors in EEC. Employs about 2,500. Dr. Hoenig, Wegmann & Co., Waggonfabrik, D-3500 Kassel, POB 103 967. Telephone: 0561-1050. P-75909.

3494—JAPAN — Leading manufacturer of pneumatically operated automatic control components seeks license to manufacture in Japan **selector valves for proportioners.** These are used in fire plugs to precisely mix foaming and wetting agents with water. Company is interested in import and distribution of item at initial stage. When demand reaches $1 million level, firm wishes to arrange licensing and/or joint venture agreement. Firm employs 530, reports annual sales of $27 million. Tozo Oku, President, Konan Electric Co. Ltd., 11-24 Hanazono-cho, Nishinomiya, Hyogo Ken. P-75893.

3500—AUSTRIA—Medium sized machine, building and engineering firm is interested in joint venture and/or licensing arrangement for production of equipment involving mainly metalworking and metalfinishing operations such as **machine tools, pumps, compressors, construction machinery.** Its modern production, service, and office facilities are in one of the most industrialized areas in the country. Company presently operates machine construction and gear wheel plant, hardening and heat treatment installations, gray iron foundry and pattern making workshop. Established 1911, employs 350. Hans Buchberger, Sales Manager, E. Eisenbeiss Soehne Maschinenfabrik, P.O. Box 18, A-4470 Enns, Austria. P-75888.

3500—GERMANY — Branch of U.S. firm seeks American **manufacturers to utilize its production facilities** through subcontracting or other arrangements. It **offers welding, machining, heavy casting and small and large metal fabrication capacity** for transportation, materials handling, agricultural and general machinery that would complement present line. Firm makes agricultural equipment and implements. Is also prepared to market equipment made in its plant in Germany and Europe. John V. McFadden, Executive Vice President, MTD Products Inc., P.O. Box 2741, Cleveland, Ohio 44111. P-75884.

3500—UNITED KINGDOM—Tool and special purpose machinery division of British group seeks licensing or joint venture agreements. Is interested in manufacturing equipment allied to **agricultural machinery, automotive, aircraft, mining and domestic appliances industries.** Firm can offer full design facilities in addition to manufacturing and marketing. Parent company reports annual sales of $4.12 million. Has capital available to invest in suitable projects. Colin Nesbitt, Director, Hyde Designs Ltd., Sandyworks, Park Road, Dukinfield, Cheshire, England. P-75876.

3523—CHILE — Individual, interested in establishing company to assemble **front loaders,** seeks parts and technical know-how from U.S. company. Existing and potential plant facilities available. Front loaders would be assembled for local market and eventually for export to the Andean Market. Pablo Larrain, Hernando de Aguirre 615, Santiago. P-75901.

3523—GERMANY—Seeks licenses to manufacture **small and medium sized agricultural machinery.** Product interests include **plows, beet harvesters, hay balers, sprayers and dusters, manure spreaders, stalk shredders and barn equipment.** Also interested in licensing its technology in these product lines in U.S. German company has its own distribution network, also exports to Eastern Europe. Employs 17, well managed. Herr Friedrich W. Herzog, Owner/Manager, Herzog Landtechnik, D-3500 Kassel-Wilhelmshoehe, Brikenkopfstrasse 22. Telephone, 0561-401067-8. P-75880.

3523—GERMANY—Manufacturer and distributor of such **agricultural equipment** as planters, cultivators, rakes and harrows wants to expand its product line. Seeks licenses to produce newly developed products to sell in East and West Europe. Also interested in cross licensing arrangements. Employs 150. H. Weiste & Co., GmbH, 477 Soest, Coesterweg 42, Postfach 706. P-75886.

3523, 3841—UNITED KINGDOM—Company seeks manufacturing and/or marketing arrangements with U.S. firms for following: **barnyard equipment and accessories, livestock management aids, breeder's equipment (excluding poultry), veterinary instruments and equipment, disposable plastic protective outer garments for use in livestock husbandry.** Company currently manufactures animal ear tags and imports and distributes pregnancy detectors, livestock waterers and carcass analysis machines. Established in 1975, company has 14 employees and network of 27 sub-distributors in EEC and EFTA areas. Robert M. Hattersley, Director, Fearing International (Stock Aids) Ltd., 12 Chater St., Moulton, Northampton NN3 1UD, England. P-75906.

3559—MEXICO — National Development Bank interested in turnkey, joint venture or technology arrangement to establish plant to manufacture **chemical processing equipment.** Cost of project estimated at $20 million. Plant site has not been selected. Otto Joklik, UNIDO Adviser, Nacional Financiera S.A., Proyecto Bienes de Capital, V. Carranza 25,

Mexico 1, D.F. Telephone, 585-3403 or 585-4718. Joklik speaks English, German, Spanish. Can also contact Ing. R. Lopez Arce, Nacional Financiera, S.A., Gerencia de proyectos y Programacion, V. Carranza 25, Mexico 1, D.F. Telephone: 512-8667 or 510-3248. Ing. Lopez Arce speaks Spanish only. P-75890.

3559—UNITED KINGDOM — Representation or licensing arrangement to manufacture **desalination equipment** is sought by producer of electrical water heaters. Company also imports gas logs, waste compactors and water heater accessories. Firm is member of group engaged in finance, mining and investment. Has 475 employees. C. E. O. Bushby, Managing Director, Heatrae Ltd., Hurricane Way, Norwich Airport, Norwich NR6 6EA, England. P-75904.

3564—SOUTH AFRICA—Seeks licenses to produce **variable pitch, marine and mixed flow fans.** Also interested in production of **attenuators, particularly rectangular and vortex dampers.** Firm presently supplies custom made industrial fans to major air conditioning contractors. J. A. C. Reed, Managing Director, Mach-One (Pty.) Ltd., P.O. Box 9080, Estadeal 6012, Cape Province. Cable, FANCRAFT; telephone, 041/42826. P-75895.

3579—UNITED KINGDOM—Seeks licenses to produce **centralized dictation equipment, electronic, electro-mechanical and cross-bar telephone exchanges, test equipment for communications industry and electronic beauty aid machines.** Firm currently manufactures and distributes telephone exchange equipment, and machines for beauty parlors. Company employs 200, reports annual sales of $1.5 million. E. J. Stocker, Managing Director, Vanderhoff Communications Ltd., Bermuda Road, Nuneaton, Warwickshire, England. P-75883.

3585—MEXICO — Seeks technology, joint venture to manufacture **bulk milk coolers.** U.S. firm is offered up to 49 percent participation. Mexican company produces and distributes refrigeration equipment. Reports annual sales of $500,000, employs around 30. Senor Jorge Garcia, Refritecnica Industrial, Mariano Escobedo 72, Mexico City 17, D.F. Telephone: 527-7549. P-75898.

3589—THAILAND—New firm seeks license or joint venture to manufacture **small and medium sized package portable water and waste treatment systems.** For use by industries and communities. Needs capital, equipment and technology. Would utilize local raw materials. Owner of firm is engineer, educated in U.S. Dr. Kusug Komolrit, KSS Consultants Co., Ltd., 279-281 Kao Sarn Road, Banglampoo, Bangkok. P-75891. OPIC.

3589—UNITED KINGDOM—Licenses to produce **machinery and equipment for recycling of waste and glass** are sought by tool division of holding company. Equipment would be marketed in U.K. Nine companies make up group and are engaged in manufacture of tools, dies, special purpose machinery, plastic moldings and sheet metal fabrications. Annual sales are $4.12 million. Colin Nesbitt, Director, Hyde Designs Ltd., Sandy Works, Park Road, Dukinfield, Cheshire, England. P-75877.

3622—GERMANY—Major manufacturer of **emergency warning, signal and safety lighting equipment** seeks licensing, cross licensing agreements. Company also makes **components for power supply units for electronic** equipment. It seeks latest technology in these and related lines; is prepared to grant licenses to U.S. firms. German concern employs around 1,000 and exports 25-30 percent of production. Is represented in 97 foreign countries, enjoys very good reputation. Willi Hesse, CEAG Licht- und Stromversorgunstechnik GmbH, 477 Soest, Postfach 78. P-75905.

3622—SWITZERLAND—Major Swiss firm seeks licenses to manufacture: **(1) process controls such as temperature, pressure and flow sensors and related control units for input and output of signals and data; (2) electric and electronic control systems for energy saving; (3) alarm, security systems and related sensors, including radar type, IR and UV systems, laser alarm devices and other passive and active alarm systems; complete, automatically controlled greenhouses, including control systems, for industrial food production.** Swiss company already has substantial know-how in sophisticated electronic and electric control systems. Is capable of handling engineering and manufacturing processes related to electronics, data processing and wiring. Equipped for production of command and control desks requiring sheet metal and metalworking. Employs 1,300, markets through Western Europe. Has large, modern plants in several countries. Also interest in cross licensing. Guido Bodmer, Weber AG, 6020 Emmenbrucke. Further details available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-75881.

3622—UNITED KINGDOM — Licenses or similar agreements to manufacture additional products are sought by producer of **electrical control equipment, custom built boards and starters for automotive and machine tool industries.** Firm is member of holding group with activities in manufacturing and sheet metal fabrication. Employs 250, reports annual sales of $4.12 million. Colin Nesbitt, Director, Hyde Designs Ltd., Sandy Works, Park Road, Dukinfield, Cheshire, England. P-75878.

3622—UNITED KINGDOM—Seeks licenses, similar agreements to **produce high volume, low cost electrical equipment or related products.** Company manufactures electrical equipment principally in electrical motor control systems areas. Most of its equipment is custom built. Firm maintains extensive production facilities. Employs 285, reports annual sales of $3.1 million. Is member of very large engineering group. R. V. Fox, Sales Director, Asquith Electronics (Colne) Ltd., Walton St., Colne, Lancashire, England. P-75903.

3674—GERMANY — Manufacturer of electrical and electronic parts seeks to broaden its product line. Is interested in licenses to produce **passive modules.** Presently, German concern makes high performance connectors, plug in frames for printed circuits and alminum profit housings for measuring and control devices and data processing equipment. Firm employs 90, markets in EEC. Would also welcome cross licensing agreements. Helmut Wallmeier, Manager, Polytronic Kunststoff-Elektro GmbH, Postfach 272, 4780 Lippstadt. Copies of German firm's product literature available from Overseas Products & Investment Opportunities Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-75882.

3714—INDIA—Established manufacturer of engine valves and marketing organization for automotive components and accessories seeks collaboration to produce **bimetal bearings, bushings and strips.** Proposal envisages establishment of manufacturing facilities for production of 1,000 metric tons of bimetal strips and 2 million bimetal bearings and bushings annually. Total cost of project is estimated at $3 million. Atul K. Gupta, Financial Director, British Motor Car Co. Ltd., Pratap Bldg., N-Block, Connaught Circus, New Delhi 110001. P-75908. OPIC.

3728, 3714—UNITED KINGDOM — Firm seeks joint venture and/or licensing arrangement with U.S. company wishing to have U.K. manufacturing base which requires high volume repetition work, for example, **aircraft components, automotive components.** Firm has considerable plant of bar, 6 spindle and chucking automatics. Firm is member of group of companies engaged in design and manufacture of press, tool, jig fixture and special purpose machinery, electrical control equipment, plastic moldings and sheet metal fabrications. Employs 250 with 10 salesmen. Annual sales volume, $4 million. Colin Nesbitt, Director, Hyde Designs Ltd., Sandy Works, Park Road, Dukinfield, Cheshire, England. P-75896.

3823—UNITED KINGDOM—Firm seeks licensing arrangement for manufacture of items complimentary to its present range of products. Firm is major manufacturer and exporter of industrial instrumentation including **pressure gages and switches, liquid level switches, electronic pressure transmitters and electronic process controllers.** Established in 1934; employs 500 and has annual sales of $5.71 million. Firm is subsidiary of very large Bath and Portland Group. C. H. Goode, General Sales Manager, K.D.G. Instruments Ltd., Fleming Way, Crawley, Sussex RH10 2QE, England. WTDR. P-75894.

4722 — GUATEMALA — Large business group is seeking **joint venture arrangement with well established U.S. travel agency with purpose of opening branch office in Guatemala to serve tourists visiting Guatemala.** Among services contemplated would be tours, helicopter and light plane facilities and sports excursions. Group is Guatemala's dealer for Ford, Honda, Subaru and Mitsubisini. Owns auto rental agency. Also, it has 30 percent interest in new 12-story El Dorado American Hotel now being built in connection with Americana Hotel Chain. Lic. Francisco Fischer, Auto Rentas, 7A. Avenida 1-83 Z.9, Guatemala City. P-75899. OPIC.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Domestic Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

SWITZERLAND—U.S. licensees are sought for line of **printing machines** for copying of large drawings and plans. These units, which use semi-dry process free of odors or noxious fumes, are self-contained and include built-in roll containers, electronically-controlled drive motors, and automatic withdrawal mechanisms. File 2883

UNITED KINGDOM — Manufacturer, importer, and distributor of **shop fittings and furniture** seeks U.S. joint venture partner in same field, preferably on Eastern seaboard. File 2884

FRANCE — Electronically controlled **lens cutter** for optical use is offered for manufacture under license. File 2885

GERMANY—U.S. licensees are sought for small and medium size agricultural machinery and implements, such as plows and listers, beet harvesters (all row sizes), hay

balers, silo unloaders, manure spreaders, sprayers and dusters, stalk shredders, and barn and barnyard equipment. File 2886

GERMANY—A leading German manufacturer and distributor of **liming and smoothing compounds for concrete** seeks licensing or joint venture arrangement with medium-sized U.S. manufacturer of cement paints and coatings. File 2887

GERMANY—Machine tool builder wishes to license its high-accuracy, flat surface grinder. File 2888

GERMANY—U.S. licensees are sought for complete line of patented, **synthetic polymer lubricants.** They are water soluble and can be used in place of normal oils or greases for numerous applications in steel and metalworking industries. File 2889

GERMANY—Line of **tubular steel portable cranes** for iron and steel, lumber, and scrap industries and for harbors and mines are offered for license. Cranes have maximum carrying capacity of 60 tons, maximum lifting height of 30 meters, maximum span, 120 meters. File 2890

GERMANY—Well-known manufacturer of **mixers for food, chemical, and pharmaceutical** industries wishes to license manufacture of its products. File 2891

Foreign Investment Sought By Republic Of Maldives

The Republic of Maldives, a group of islands in the Indian Ocean, 300 miles southwest of India, invites proposals from the international business community to invest in the country. While any type of proposal will be considered, the Republic is most interested in the following projects: Establishment of an oil refinery and bunkering facilities; tourism development including resorts, international airport and airline; facilities for storage and rebagging of merchandise, also bonding and manufacturing of commodities for export; large scale fisheries projects; international banking.

The Government offers a variety of investment incentives including free and unrestricted repatriation of profits, tax and duty free concessions, no exchange control restrictions, bank secrecy laws and free entry to skilled personnel. Interested parties should contact Department of External Affairs, Foreign Investment Division, Government of the Republic of Maldives, Male, Republic of Maldives. P-75907.

Nigeria's Tendering System Detailed In Embassy Report

A report from U.S. Embassy in Lagos, detailing Nigeria's tender system, Federal Works Board rules for registration and reclassification of contractors, domestic controls, and addresses of State Tenders Boards and major federal Tenders Boards, is available from the U.S. Department of Commerce, Trade Opportunities Program, Rm. 2321, Washington, D.C. 20230.

Opportunities For U.S. Business In Northern Spain Offered

A publication prepared by the American Chamber of Commerce in Spain may be of interest to U.S. exporters. Entitled "Northern Spain Opportunities for American Business," the publication is available from the American Chamber of Commerce in Spain, Eurobuilding Ofic. 9 A, Padre Damian 23, Madrid 16.

Foreign Trade Inquiries

These trade opportunities are based on reports received from the U.S. Foreign Service—Department of State by the Trade Opportunities Division, Room 2323, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Miscellaneous marine products

0919XXX—MEXICO—Sea and snail shells, all types, especially rare ones. Mr. Franco is doing feasibility study of a marine park with a shell museum for the Jalisco State Government. If project is approved, substantial shell purchases will necessarily follow. Recommend that literature be sent for future purchases pending budget authorization. Mr. Franco is also acting as purchasing agent for Biology Department of autonomous University of Guadalajara. Reply to—Mr. Francisco Franco, Representante, Fauna Marina Mexicana, Lista de Correos Oficina Ciudad del Sol, Guadalajara, Jalisco. Tel 217929.

Converted paper, paperboard products

26471XX—ZAIRE — Sanitary napkins & toilet paper; tampons. Private firm dealing in general merchandise, food products & textile products. Has been importing considerable volume of textiles incl. sweaters but forced to stop such imports due to current lack of foreign exchange in Zaire. Willing to import & represent above products. Correspondence & sales literature preferably in French. Reply to—Moanda Wamba, Dir., Ets Moanda Wamba Talamaku, B.P. 1703 Kin I, Kinshasa, Rep. of Zaire. Direct sales & rep.

Industrial chemicals

• **28100, 28600, 37100, 38100, 38200—INDONESIA**—Government of Indonesia invites bids for following materials and equipment for five cities (Jambi, Purwokerto, Malang, Banyuwangi and Samarinda) for water supply project which will be financed under IBRD loan number 1049-IND: Contract 1, motor vehicles (15 jeeps, min. 2000 cc., 6 or 4 cylinder); contract 2, water meters and miscs. materials and equipment; contract 3, laboratory chemicals and equipment. Government of Indonesia has granted exemption for importation of vehicles in built up condition for this project. Exemption is confirmed by letter from Dept. of Trade No. 02608/DJP/I/10/74 dated Oct. 1, 1974. Cost of each contract document is rupiah 10,000 (approx. $24.10) and must be obtained from below address prior to submitting offers. Directorate of Sanitary Engineering, Direktorat Jenderal Cipta Karya, Dep. P.U.T.L., Jalan Pattimura No. 20, 4th Fl., Kebayoran, Baru, Jakarta Selatan, Indonesia. Bid No. is DJ. 24/4/8/75. Bid deadline, Feb. 19, 10 a.m.

Steel mill products

• **33100 — THAILAND** — State Railway of Thailand (SRT) plans to purchase 16,000 metric tons of 80-pound rails. Total budget for this project is about US$7.5 million. Project is under study by Ministry of Finance; SRT plans to issue tender in February. Firms will be requested to submit two types of bids: with price on loan basis with source of financing, and with price in cash. Contact: Cherd Boonyaratavej, Chief, Stores Bureau, State Railway of Thailand, Yodse, Bangkok.

Rolling, drawing & extruding of nonferrous metals

• **33500—IRAN**—15 tons copper sleeves for steelcore wire. Tender No. 54/65; bid deadline Feb. 1. Telecommunications Co. of Iran (TCI), Bisim Pahlavi, Kourosh Kabir Ave., Tehran, Iran. Tender documents at above address at cost of rials 1 000 (rials 69.50 about $1 with check drawn to General Purchasing Department.

• **33500—IRAN**—400 tons hard drawn copper clad steel wire. Tender No. 54/61; bid deadline Feb. 1. Telecommunications Co. of Iran (TCI), Bisim Pahlavi, Kourosh Kabir Ave., Tehran, Iran. Tender documents available at above address at cost of rials 10 000 with check drawn to General Purchasing Department.

Fabricated structural metal products

• **34400, 35300—INDONESIA**—Joint Sugar Projects Unit, Jalan Sikatan 1, Surabaya, invites bids for: Contract No. 37, structural steelworks and cladding for buildings, molasses tank and two gantry cranes for sugar factory at Pesantren, East Java; con-

tract No. 38, three cooling towers with capacities of 430, 500 and 720 liters per sec. Tender specifications must be purchased from above address for $96.40 for contract 37, $48.20 for contract 38. General conditions for bids and contracts cost $6.10. Bid deadline, Feb. 17.

34422XX — 34294XX — 3355231 — LIBERIA — Shower door material (aluminum) — to be cut & assembled by buyer. Locks, slides, rollers, handles, etc., to be used with above aluminum frame material in mfg. windows & doors. Aluminum door and window frame material—to be cut & assembled by buyer into windows (sliding, sash, jalousies, etc.) & doors. Also all hardware to be used in mfg. above. Needs to arrange for reliable supplier over long-term, & desires responses ASAP. Prices should be quoted c.i.f. Monrovia. Market should be sizable. Buyer is member of Mesurado Group of companies, largest commercial enterprise in Liberia. Mfrs. windows & doors, soap under foreign franchise, animal feed, oxygen & other gases. Also wholesales these products with some retail. Marketing position of firm excellent. Requests replies from East Coast firms. Reply ASAP to—Elkanah King, Gen. Mgr., Mesurado Corp. Consolidated, P.O. Box 142, Monrovia. Cable Mesufish; telex 4229; phone 22421 or 22838.

Engines, turbines

● **35110—COLOMBIA** — Electric Corp of Atlantic Coast is interested in contracting, on a turnkey basis, the design, construction, supply of equipment and placing in operation of an 110 KV electric substation. Equipment includes a 30,000 KW gas turbine generator set, transformers and switching devices. Bid deadline Jan. 30. Specifications available from Corporacion Electrica De La Costa Atlantica, Correlca Calle 40 No. 44-39, Piso 2, Barranquilla, Colombia, for $155 first copy and $92 each additional copy.

Farm machinery

● **35230—BENIN (DAHOMEY)** — M. Le Director General, Societe Nationale Agricole Wur Le Coton (SONACO), BP 1292, Cotonou, Benin, request bids on 420 hand sprayers suitable for insecticide with harnesses. Tender financed by SONACO's own funds, which are in turn subsidized by IBRD. Bid specifications available at Embassy of People's Republic of Benin, 2737 Cathedral Ave., NW., Washington, D.C. 20008; Benin Mission to the UN. 4 E. 73rd St., New York, N.Y.; or write directly to Mr. Le Director General. Price of bid document is 5,000 CFA ($25). Make checks payable to SONACO. Correspondence in French preferable.

Construction, mining, materials handling machinery, equipment

● **35300—TURKEY** — Lignite and combustible marl preparation plant for seyitomer thermal power plant, comprising: two R.O.M. coal and marl silos, two steel-shoe apron feeders, two vibratory grizzlies, one rotary crusher, one hammer crusher, belt conveyors, discharge and transfer chutes, bins, etc. Tender number 11; bid deadline Jan. 20. Turkiye Komur Isletmeleri Kurumi, General Mudurlugu, Zafer Meydani, Mudendisler Birligi Sokak, Ankara (Turkish Coal Authority). Option: 90 days. Delivery period: Within 18 months as from contract. Alternative tenders acceptable. Prices in terms of f.o.b. Payment: L/C. Bidding specifications in English may be obtained from Modern Translation Bureau (address: Karanfil Sokak 36/3, Yenisehir, Ankara) for $17. Checks payable to Modern Translation Bureau should accompany orders.

● **35300—SOUTH AFRICA**— South African Railways & Harbours invites bids for supply of container cranes, Tender No. 1030 71544. Tender documents available from Chief Stores Superintendent, Rm 801, Melhof, 2 Melle St., Braamfontein, Johannesburg, for R20 per set. Bid deadline Feb. 27. Administration does not bind itself to accept lowest or any tender.

● **35300 — YUGOSLAVIA** — Materials and personnel handling equipment for skip shaft of new area of underground copper mine. Tender No. 121/U-39/2636/ES; bid deadline, Feb. 20. Jugotehna Export-Import, Kolarceva 7, 11000 Beograd. Complete technical specifications and details can be obtained from above address.

Household appliances

3635041 — JAPAN — Household vacuum cleaners, complete power units, central system type. Est. annual purchase $50,000. Will sell item to wholesalers throughout Japan. Specializes in air conditioners, ag. chemicals, & mechanical parts. Annual sales $300 million. Ref.: Sumitomo Bank Head Office, Osaka. Reply to—Mr. Tsutomu Kometani, Technical Div., Daikin Kogyo Co., Ltd., Shin Hankyu Bldg., 8, Umeda-cho, Kita-Ku, Osaka 530. Cable Daikinokay Osaka; tel 06-346-1201; telex 523-3844 Daikinokay.

Important Notice

Most member countries of the League of Arab States employ a secondary boycott against foreign firms which undertake certain specified types of business relationships with the State of Israel. The Commerce Department will not disseminate or make available for inspection any tenders or trade opportunity documents which contain conditions intended to support such boycotts, or which are based on documents known to contain such provisions. Trade or investment opportunities published herein are not presently known to be subject to such conditions. However, it is possible that U.S. firms responding to opportunities from Arab countries may be asked at some stage of a transaction to participate in an Arab boycott-related restrictive trade practice as defined in the Department's Export Administration Regulations (15 CFR, Part 369 et. seq.).

Firms are reminded that pursuant to Section 3(5) of the Export Administration Act of 1969, as amended, it is the policy of the United States (a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request U.S. concerns engaged in the export of articles, materials, supplies, or information to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting such restrictive trade practices or boycotts. Accordingly, U.S. concerns receiving such requests to participate in a restrictive trade practice or boycott are encouraged and requested to refuse to comply with them.

Firms are further reminded that U.S. concerns receiving requests to participate in a restrictive trade practice or boycott must report such receipt to the Department of Commerce in accordance with Section 369.2 of the above-cited regulations.

Communications equipment

● **36600—SAUDI ARABIA**—Modern Electronic Est., P.O. Box 1228, Jidda desires to contact U.S. manufacturer of HF, VHF and UHF radio equipment, and crossbar and electronic telephone exchanges. Interested firms should contact Western Regional Manager, Mr. Fahad Kassis, at above address, or cable "Modern," Jidda; telephone 27798.

● **36610—ALGERIA**—Monsieur le Directeur des Equipments des Telecommunications, Bureau des Marches, Piece 828, Ministere des Postes et Telecommunications, Salah Bouakouir, Algiers, has issued tender for supply of material for Algerian Telex-Gentex Network; 1,200 French and 50 Arabic type teleprinters, 50 CC type teleprinters. Bid deadline Jan. 19. Copy of specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Dept. of Commerce, Washington, D.C. 20230, 202-967-5569.

● **36610—INDIA**—Director General, Posts and Telegraphs (MMD Section), Parliament St., New Delhi 110001, has issued tender no. 12-129/75-MMD for supply of Common Channel Signaling System for Telecommunication Research Center, New Delhi. Bid deadline Feb. 3. Copy of specifications available from above address for $2.74, or on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-5569.

● **36620—ETHIOPIA**—Mitiku Ayana, Head, Nav-Aid and Communications Engineering Department, Civil Aviation Administration, P.O. Box 978, Addis Ababa, is seeking U.S. firms interested in submitting price quotations for supply of radio communications and navigational aid equipment. Copy of specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-5569.

● **36620 — PAKISTAN** — Railway Board, Ministry of Railways, Government of Pakistan Railway Headquarters, Empress Road, Lahore, has issued tender no. PRI-I/75/SIG/4 for supply of railroad signalling and telecommunications equipment. Bid deadline Feb. 20. Tender documents available from above address for $21.50 or on short-term loan basis to firms located in U.S. from Science & Electronics Div., address above.

● **36620 — ECUADOR** — Secretaria Del Comite De Licitaciones, Direccion General De Aviacion Civil, Edificio Ave Maria 8 Piso, Colon Y Juan Leon Mera, Quito, has issued tender no. 002-75-DAC for supply of 46 radar systems and equipment. Bid deadline April 6. Technical specifications available from above address for non-refundable U.S. $200. Proposals must be in Spanish.

● **36620 — TURKEY** — Trt Kurumu Genel Mudurlugu, Genel Evrak Mudurlugu, Nevzat Tandogan Caddesi 2, Kavaklidere, Ankara, has issued tender no. 3406-EPYD/198 for program channel plus one service phone channel. Bid deadline Feb. 18. Bidding specifications available from Modern Translation Bureau, Karanfil Sokak 36/3, Yenisehir, Ankara, for $21.

Railroad equipment

● **37400—SOUTH AFRICA**—South African Railways & Harbours invites bids for supply of 1,000 bogie grain wagons, type FZD-10, Tender No. 1020 71590. Tender documents available from Chief Stores Superintendent, Rm 3, Melhof, 2 Melle St., Braamfontein, Johannesburg, against payment of R30 per

set and R30 per additional set. Drawings may be purchased for R80 per set, not refundable. Bid deadline, March 26. Administration does not bind itself to accept lowest or any tender.

Measuring & controlling devices

● **38200, 37100, 37300, 38600, 35700 & 35600—PHILIPPINES** — National Irrigation Administration invites bids for supply, delivery to site, assembly, servicing and making operational following equipment: hydrometry equipment; station wagons, jeeps; motor boat with outboard motor; reflecting projectors; white printing machine; electronic calculators; water pumps. Manufacturers or their authorized representatives interested in further details must obtain contract documents upon non-refundable payment of $10 per copy at: National Irrigation Administration, P.O. Box 465, Greenhills, Rizal, Philippines, or at The Associated Firms ECI-ED COP, P.O. Box 1493, Manila. Bidders will be required to submit qualification data which will indicate experience in manufacture of commodities similar in type to above. Post qualification of bidders will be made by National Irrigation Admin. during bid evaluation, taking into consideration manufacturer's service support and spare parts inventories in the Philippines. Philippine Government has received loan from World Bank in various currencies toward cost of Aurora-Penaranda Irrigation Project and it is intended that a portion of proceeds of this loan will be applied to foreign exchange requirements under this contract. Cost in Philippine currency will be financed from local sources. Deadline for submission of bids is Feb. 12, 10:30 a.m.

● **38200—SOUTH AFRICA**—South African Government invites bids for supply and installation of telecontrol equipment, instrumentation, meters and meter provers for petroleum products pipeline between Durban and Witwatersrand. Tender No. CCE190/75TB. Tender documents available from Chief Civil Engineer, Rm 392, Tippett Bldgs., Johannesburg, for R6 per set. Bid deadline, Feb. 6.

● **38210—INDIA**—Hindustan Shipyard Ltd., Gandhigram, Visakhapatnam, 530 005, India, has issued tender no. COP/Q/Pt.437/23581/VC.171010 TO 015 for supply of flow meters. Bid deadline Feb. 16. Copy of specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-5569.

● **38250—INDIA**—Super Intending Engineer Purchase and Stores, Tamil Nadu Electricity Board, 157 Anna Salai, Madras 600002, India, has issued tender no. IDA/REC/TNEB/2 for supply of 11,350 single-phase, 3,850 three-phase kilo-watt hour meters, and 46,500 low tension shunt capacitors according to specifications. Bid deadline Feb. 4. Payment will be from IDA loan and only suppliers located in member countries of World Bank and Switzerland eligible to bid. Copy of specifications available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230. 202-967-5569.

● **38290 — ALGERIA** — Bureau D'Equipment, Enema, 1, Avenue De L' Independence, Algiers, has issued tender no. 29-75 for four automatic meteorological observation systems. Bid deadline Feb. 22. Copy of specifications in French available on short-term loan basis to firms located in U.S. from Science & Electronics Div., BDC-466, Room 1001, U.S. Department of Commerce, Washington, D.C. 20230, 202-967-5569.

Photographic equipment, supplies

● **38610—INDIA**—Director General, Post & Telegraphs, Parliament St., New Delhi—110 001, has issued tender no. 12-128/75—MMD for supply of 6GHz wide-band microwave equipment for Calcutta-Assam routes. Bid deadline, April 1, 4 p.m. (IST). Copy of specifications available from above address for $2.74.

Toys, amusement, sporting goods

3949598—JAPAN — Surf boards. Buyer is small-sized importer, exporter & distrib. Specialized in sales of water sports goods. Current annual sales: 1,900 million yen. Number of employees, 46. Estab. 1953. Request immediate response for resale. Reply to—T. Hayashi, Trade Section, Daisan Shoji Co. Ltd., 4-18, Nakakagaya 4-Chome, Suminoe-ku, Osaka. Cable, Marineseapet; tel, 06-681-8000.

Manufacturing industries

39999XX — JAPAN — Photographic color transparencies for use in printed and published materials; 35 mm. to 8 x 10 in. size; subjects include scenic views, sports, leisure activities, children, animals, festivals, manners, customs. Unit price, $50-$300. Buyer acts as film copyright agent and imports films on purchase or lease basis. Reply to—Gato Inoue, Pres., Uni Photos Co., Inc., Asahi Bldg., 5-7 Akasaka 2-Chome, Minato-ku, Tokyo 107. Direct sale & dist.

Scrap & waste materials

5093XXX—PAKISTAN — Remeltable steel scrap in following descriptions and quantities (I) HMS-1: quantity 20,000 tons (II) HMS-2, quantity 20,000 tons. Value approximately $4 million. Buyer is medium-size firm engaged in importing and indenting iron and steel products. Presently imports from Japan, U.K. and U.S. Wishes to import for sale to others. Requests C and F Karachi quotations against l/c. Also interested in long term relationship and agency arrangements. Marketing territory all Pakistan. Firm claims annual sales at $100,000. Employs 11 including 3 salesmen. Reply to—Mohammad Hanif, Proprietor, Mohammad Shafi & Sons, 2A, 2nd Floor, State Life Bldg., No. 4, Frere Road, Karachi-2. Cable: "Loha" Korachi; telephone 235111; telex KR-858.

50930XX — TAIWAN — Aluminum scrap, suitable for making pots and pans (kitchenware). Monthly shipments about 500 M/T. All prices should be f.o.b. U.S. port nearest to source of supply with pertinent weight and mesaurement info. Direct sale to third country. Reply to—Mr. W. T. Wagner, Dir., American Overseas Agencies, 28, St. 43, Road 4, Tien Mou, Taipei, Taiwan 112. Tel 8719238; telex 21600 Airborne, Attn: Wagner.

Miscellaneous shopping goods stores

5949XXX — CAMEROON — Textile remnants. Small aggressive firm well capitalized. Imports & sells textiles & leatherette. Financial source indicates firm has competent management. Working capital 40 million CFA. Business is expanding & needs new supply sources. Recommended for business contact with normal commercial safeguards. Reply to—Mr. Orji Kalu, Mng. Dir., Ets Chinedu Umekwe, B.P. 256, Douala.

5949XXX — CAMEROON — Textile remnants. Potential textile dealer. Wants to increase range of supplies. Mainly looking for U.S. products. Needs catalogs & all related details. Reply to—Prince N. Zikpe, Dir., Sointertraco, B.P. 472, Douala. Cable Intertrace; tel 42-43-39.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Household furniture

2511761 — SOUTH AFRICA — Household furniture in do-it-yourself kits or knock-down kits. Mr. First previously director of Anglo-Union Furniture Mfrs., family concern which sold out to public company in May 75. Claims to have had 15 yrs. experience in this area & now wishes locate mentioned product lines with view to local mfr. under license. Will be visiting U.S. & Canada early 1976 in order to canvas prospects & requires replies ASAP as he wishes to embark upon this project & become operative with minimum of delay. Will form new company once product line established. Financial ref: Standard Bank, Library Gardens, Johannesburg, who report favorably on Mr. First. Requests available literature, catalogs. Main interest is in mfg. under license, also interested in distributorship. First appears to be particularly well connected in this field & this opportunity could prove to be substantial. Reply ASAP to—M. H. First, P.O. Box 263, Johannesburg 2000. Tel 011/424048.

Rubber footwear

3021121 — AUSTRIA — Boots for riders. Small importer of sporting goods interested in diversifying sales program. Agency agreements for Austria & possibly Germany & Switzerland sought. Documented offers with c.i.f. European port or f.o.b. quotations requested. Open account means of payment preferred. Reply to—Mr. Gerd Tybl, P. G. Tybl. Gerichtsgasse 18/6, A-1210 Vienna. Tel 0222-2844665.

Rolling, drawing, & extruding of nonferrous metals

3356959—KOREA—Lead ingot, 99.9%, 100 ton/mo. Firm newly estab., registered offer agent with $200 000 sales volume made in past year. Interested U.S. supplier should contact pres. with price & delivery terms. Cable—Mr. Park, Chun Tae, Pres., Kyung Il Trading Co., C.P.O. Box 3765, Seoul. Cable: Yunco, Seoul; tel: 25-8911.

Metal stampings

3469503—GREECE—Stainless steel top-of-range utensils. Firm operates as agent, importer & distr. of electric appliances. Represents U.S. firms. Member of Athens Assn. of Commercial Agents. WTDR on request. Reply to—Nikolaos Kissamitakis, Mgr., N. Kissamitakis & Co. E. E., 34 El Venizelou St., Athens 143. Tel 600114, 627091.

Metalworking machinery

35461XX — ICELAND — Various electric power-driven hand tools. Quote f.o.b. Norfolk. Contact buyer—Gudbergur G. Gudbergsson, Mgr., GOS Ltd., P.O. Box 4022, Skipasundi 16, Reykjavik. Cable GOS; tel 33144. Excl. agency.

Special industrial machinery

3555343—KOREA — Photographic typesetting machine for newspaper, text printing press. Korea Times is a leading English daily newspaper. Interested U S. firms should contact Mr. Chung supplying details, brochures, & terms of delivery. Reply to—Chung, Tae Yun, Mng. Ed., The Korea Times, CPO Box

1568 Seoul 100. Telex Hkibok-2244; cable Korea Times; tel 72-4169.

Household appliances

36343XX—UNITED KINGDOM—Portable humidifiers; corn poppers. Recently established & employs 4. Headed by former U.S. resident (20 yrs.) with wide experience on both sides of Atlantic and excellent U.K./European connections. Reply to—Shirley M. Riley, Mng. Dir., Zephyr (Div. of Teakgrange Ltd.), 30 Hornton St., London W8, U.K. Tel 01-937-1066; telex 928606.

Instruments for measurement, analysis and control

38252XX — GERMANY — Electronic time measuring & counting equip., electronic x-y recorders; other electronic test measuring equip. W. Berlin mfr./distrib. of electronic measuring equip. for industry & laboratories desires to act as W. Berlin rep. for U.S. mfrs. of same. Reply to Dr.-Ing. Franz Wallner, BMT Messtechnik Dr.-Ing. Franz Wallner, Humboldtstr. 22, D-1000 Berlin 33. Tel (030) 885 14 11.

Kuwait Offers Opportunities For Consumer Product Sales

A Western-style department store is being built in Kuwait to take advantage of the strong consumer goods market in that country.

Only two department stores exist in Kuwait; both are small and hold limited amounts of goods. The new store will feature all types of consumer products, including appliances, furniture, clothing, sporting goods and toys. There will be space for display and storage plus a nearby parking garage. Interested U.S. firms may contact Adel Al-Rishe, Managing Director, Electronic Appliances Corp., P.O. Box 2444, Kuwait; cable, TRANSISTOR; telex, 2019 EACK. P-75885.

Important Notice

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Future Construction Abroad

ARGENTINA—Navigation system for Salto Grande hydroelectric project, the third and final stage of the complex, involves construction of single lock mechanism at western end of dam, which will permit navigation past Salto Grande, and, in future, up to Argentine-Brazilian border. Feasibility study is being updated by Chas T. Main, Boston, supervisors of the hydroelectric project. The updating is expected to be completed by first quarter of 1976. Current plan is to have navigation system operational by end of 1978.

Project consists of 13 km. long lock in Argentine territory, running from upper stream sluice gate at Ayui, past Salto Chico rapids. Lock will have 60-meter-wide chamber floor, and will allow passage of 9-ft. draft vessels. Ayui sluice gate is designed to compensate water levels ranging from +37 mts. at storage dam to +17.50 mts. within lock, while Salto Chico sluice gate would take the +17.50 mts. within lock, while Salto Chico sluice gate would take the +17.50 level to +2 mts. Galto Grande Mixed Technical Commission (CTM), Cerrito 264, 4th Fl., Buenos Aires, hopes to call for offers for mechanical equipment for navigation system (the only components to be imported) by beginning of 1977. Imported items will include gates and valves, auxiliary mechanical system, machine drive, control and signaling equipment.

IRAQ—Government of Iraq is planning to build two bridges near Baghdad. Government-controlled Iraqi News Agency (INA) announced Dec. 6 that Ministry of Works and Housing has recently sent invitations to selected international bidders to participate in tender for construction of Baghdad North 260-meter bridge across Tigris River. Structure is to rest on eight reinforced concrete supports with roadway six meters above normal height of river. Bridge is part of general road scheme to route long-distance truck traffic around rather than through Baghdad as at present.

INA also announced that designs and specifications of Daura Bridge (connecting Baghdad with industrial suburb across Tigris) are being prepared and calls for tender will go out around April. U.S. firms wishing to participate in these two schemes should write Ministry of Works and Housing, Baghdad, telex 2282 IK, requesting that they be placed on list of companies to receive bids. Letters expressing interest should contain indication of firm's previous experience in Arab world and with bridge building.

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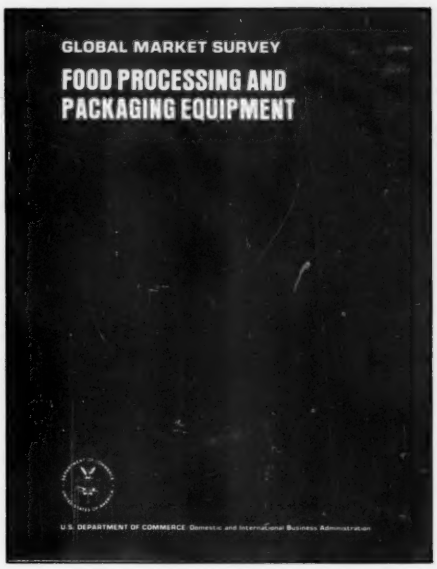
Immediate Sales Opportunities for Manufacturers of Food Processing and Packaging Equipment



A new Global Market Survey—Food Processing and Packaging Equipment—has just been released by the Bureau of International Commerce, Office of International Marketing. The Survey identifies the best sales opportunities for your products in selected overseas markets. Contact the nearest District Office (see inside cover) to obtain your copy.

Right now there's proven foreign demand for a broad range of U.S.-made food processing and packaging equipment. The following list indicates the types of machinery covered in the Survey.

Food Processing Equipment, for—

- meat, poultry, and eggs
- milk and dairy products
- fruits and vegetables
- grain
- bakery products
- sugar and confectionery products
- fats and oils
- beverages
- fish and seafood
- miscellaneous and specialty food products

Food Packaging Equipment—

- forming, filling, sealing
- wrapping, packing
- marking, inspecting
- container/product/package preparation and handling

Countries covered by the Survey include:

- Australia
- Brazil
- Canada
- France
- Germany
- Iran
- Israel
- Italy
- Japan
- Mexico
- Netherlands
- Spain
- Sweden
- United Kingdom
- USSR
- Venezuela